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Final  
Annual 2005  
Groundwater Monitoring Report

Hawthorne Army Depot  
Hawthorne, Nevada

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Prepared for:



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### **Attachments**

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## ACRONYMS AND ABBREVIATIONS

°F	Fahrenheit
µg/L	Microgram per liter
1,2-DCA	1,2-dichloroethane
4,4-DDT	4,4-dichlorodiphenyltrichloroethane
2,4-DNT	2,4-dinitrotoluene
2-amino-4,6-DNT	2-amino-4,6-dinitrotoluene
4-amino-2,6-DNT	4-amino-2,6-dinitrotoluene
AL	Action Level
AMSL	Above mean sea level
APCL	Applied Physics and Chemistry Laboratory
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	Below ground surface
COC	Chemical of concern
DTW	Depth to water
E&E	Ecology and Environment
EPA	U.S. Environmental Protection Agency
ft/ft	Foot per foot
HWAAP	Hawthorne Army Ammunition Plant
HWAD	Hawthorne Army Depot
ID	Inside diameter
IDW	Investigation-derived waste
ITC	International Technology Corporation
MCL	Maximum contaminant level
MDL	Method detection limit
mg/L	Milligram per liter
MS/MSD	Matrix spike/matrix spike duplicate
NAD	Navy Ammunition Depot
Navy	U.S. Department of the Navy
NDEP	Nevada Division of Environmental Protection
No.	Number
OD	Outer diameter

## ACRONYMS AND ABBREVIATIONS (Continued)

PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene
PID	Photoionization detector
PQL	Practical quantitation limit
PRG	Preliminary remediation goal
QA/QC	Quality assurance and quality control
RDX	Cyclotrimethylenetrinitramine
SWMU	Solid waste management unit
TKN	Total Kjeldahl Nitrogen
TCE	Trichloroethene
TNT	2,4,6-trinitrotoluene
Tetra Tech	Tetra Tech EM Inc.
USACE	United States Army Corps of Engineers
USAEHA	U.S. Army Environmental Health Agency
USGS	U.S. Geological Survey
VOC	Volatile organic compound

## 1.0 INTRODUCTION

Tetra Tech EM Inc. (Tetra Tech) was contracted by the United States Army Corps of Engineers (USACE) Sacramento District, under Contract Number (No.) GS-10F-0076K, Task Order No. 177, to assist the Department of the Army with continued basewide groundwater monitoring at Hawthorne Army Depot (HWAD) in Mineral County, Nevada (see Figure 1). The monitoring effort was conducted under authority of the Defense Environmental Restoration Program for the Installation Restoration Program.

This annual report summarizes the groundwater monitoring results from the December 2005 groundwater monitoring event at HWAD. This report is divided into the following 11 sections and includes figures, tables, appendices, and attachments following the text:

- Section 1.0 is the introduction.
- Section 2.0 provides a site description and background.
- Section 3.0 describes the physical setting of the site and surrounding area.
- Section 4.0 summarizes previous investigations and includes site descriptions.
- Section 5.0 describes the purpose and scope of this report.
- Section 6.0 presents sampling criteria and describes the sample selection process.
- Section 7.0 describes the field activities and methods used during monitoring.
- Section 8.0 provides analytical results and field measurement data.
- Section 9.0 presents conclusions.
- Section 10.0 provides recommendations.
- Section 11.0 provides references for this report.

Additionally, Section 7.7 summarizes wells that were not sampled, analyses that were not performed, and a summary of changes to the sampling schedule.

## 2.0 SITE DESCRIPTION AND BACKGROUND

The following sections discuss the location and history of the HWAD site and are referenced from the "Final Work Plan for Basewide Groundwater Monitoring" (Tetra Tech 2006a).

### 2.1 SITE LOCATION

HWAD is in the west-central part of Nevada, 140 miles southeast of Reno, on the southern shore of Walker Lake (Figure 1). HWAD is in Mineral County and occupies 150,000 acres of semi-arid land surrounding the Town of Hawthorne, which has a resident population of about 3,700.

### 2.2 SITE HISTORY

HWAD was established after an explosion in 1926 destroyed the ammunition plant at Lake Denmark, New Jersey, and a court of inquiry investigating the explosion recommended that a depot be established in a remote area within 1,000 miles of the West Coast to serve the Pacific area. The depot was originally operated by the U.S. Department of the Navy (Navy) and was named the Hawthorne Navy Ammunition Depot (NAD). Construction of NAD began in July 1928 and the depot was commissioned on September 15, 1930. The first shipment of explosives was received on October 19, 1930. By 1948, NAD occupied about 104 square miles (66,560 acres) of the 327 square miles under Navy jurisdiction (Navy 1962). Subsequently, excess Navy lands were turned over to the Bureau of Land Management.

The mission and functions of the facility have remained much the same over the facility's history. The mission, as stated in a 1961 Command History (Navy 1962), was to "receive, renovate, maintain, store and issue ammunition, explosives, expendable ordnance items and/or weapons and technical ordnance material and perform additional tasks as directed by the Bureau of Naval Weapons."

NAD Hawthorne was transferred to the Army and was re-designated Hawthorne Army Ammunition Plant (HWAAP) in 1977 as part of implementing the Single Manager for Conventional Ammunition concept. Subsequently, HWAAP was converted to a government-owned, contractor-operated installation in 1980 under the jurisdiction of the Army Armament, Munition and Chemical Command. (The facility is a military industrial installation; the resident contractor is Day & Zimmermann Hawthorne Corporation, which with the government employs approximately 550 personnel.) With the loss of its production mobilization mission, HWAAP was designated with its current name as Hawthorne Army Depot (also

known as HWAD) in 1994 and is now under the jurisdiction of the U.S. Army Joint Munitions Command.

### **2.3 REGULATORY BACKGROUND**

The lead agency for environmental issues at HWAD is the Nevada Division of Environmental Protection (NDEP), on behalf of the U.S. Environmental Protection Agency (EPA), Region IX. Under guidance from NDEP, groundwater action levels (AL) proposed for HWAD are the EPA's primary maximum contaminant levels (MCLs) for drinking water. If no MCL has been established, then the EPA's Region IX preliminary remediation goals (PRGs) for tap water are used (USEPA 2004). All of the analytes previously detected could be compared with these ALs, except for ammonium picrate. In that case, the NDEP approved an AL based on a health-based risk analysis of ammonium picrate in drinking water by the Agency for Toxic Substances and Disease Registry (ATSDR). The AL also was based on the practical quantitation limit (PQL) obtainable in the laboratory for ammonium picrate in water samples using Modified EPA Method 8330M under ideal laboratory conditions. The ATSDR established an acceptable level of ammonium picrate of less than 0.1 microgram per liter ( $\mu\text{g/L}$ ). However, as the PQL of 0.5  $\mu\text{g/L}$  is based on ideal laboratory conditions, the NDEP approved an AL for ammonium picrate at HWAD of 1.0  $\mu\text{g/L}$  as an obtainable limit for groundwater samples. A list of NDEP-approved ALs established for HWAD is provided in Appendix A.

Previous investigations have documented detections of contaminants in soils and groundwater at HWAD. Some contaminants, including explosives, volatile organic compounds (VOCs), and inorganic nitrogen compounds, have been detected above their respective ALs (Tetra Tech, Inc. 1998b, 2002). The suite of laboratory analyses performed under Tetra Tech's 2005 groundwater monitoring program at HWAD includes these contaminant types based on requests from NDEP.

### **3.0 PHYSICAL SETTING**

The following sections describe the physiography, geology, hydrogeology, and meteorology of the Walker Lake Valley (Tetra Tech, Inc. 1998b).

### 3.1 PHYSIOGRAPHY

HWAD is within the Whiskey Flat-Hawthorne sub-area of Walker Lake Valley in the Great Basin section of the Basin and Range physiographic province. Walker Lake Valley trends north-northwesterly and is bordered by desert and the Terrill Mountains on the north, the Garfield Hills and Gillis Range on the east, the Excelsior Mountains and Anchorite Hills on the south, and the Wassuk Range on the west. HWAD occupies about half of the southern Walker Lake Valley.

Basin and Range features include discontinuous, subparallel mountain ranges separated by valleys or plains that vary in width from several hundred feet to several miles. Their lengths also vary, with some valleys reaching several tens of miles. These longer valleys frequently contain lakes or dry lake beds. The highest peak in the area, with an elevation of 11,239 feet above mean sea level (amsl), is Mt. Grant in the Wassuk Range. Most of the peaks of the Wassuk Range are 9,000 feet amsl. By contrast, peaks in the Garfield Hills east of the base are below 8,000 feet amsl. South of HWAD, the valley continues into Whiskey Flats Area.

Walker Lake was about 3,956 feet amsl in 1979. The elevation of the Walker Lake Valley rises to about 4,800 to 5,000 feet amsl at the southern end of HWAD, which is approximately the elevation of the southernmost HWAD ammunition magazines and the elevation where intermittent streams from the alluvial fans at the base of the Wassuk Range begin to diverge onto the valley floor.

### 3.2 SURFACE WATER

HWAD is situated on the surface of a hydrologically closed basin that geographically widens to the northwest. The valley floor where the basin is located consists of a broad alluvial apron. The valley floor slopes from an elevation of about 4,800 feet amsl at the foot of the Garfield Hills in the southeast to less than 4,000 feet amsl northwest at the edge of Walker Lake. Flanking the alluvial apron are alluvial fans with slopes of up to 6 percent. Sediments of the alluvial fans originate from sheet and channel erosion in the surrounding mountains. Erosional and depositional processes are accelerated by intense local thunderstorms resulting in flash floods and debris flows that deposit the eroded sediments as alluvial fans on the desert floor.

The primary watershed for HWAD is the Wassuk Range on the western boundary of the facility. Runoff from the streams draining the Wassuk Range recharges the valley aquifers. However, no perennial

surface streams traverse the valley floor. Surface runoff occurs only after major rainfall events or unusual snow melt, and surface flow rarely reaches Walker Lake. Although the installation is above the 500-year floodplain, dikes have been constructed bordering the principal drainage through HWAD to protect the facility from flash flooding.

Walker Lake is the terminal point in the surface water flow system of the Walker Lake Valley and represents the base level for groundwater flow. The elevation of the lake was 4,020 feet amsl in 1940 and 3,956 feet amsl in January 1979, representing an average annual decline of about 1.7 feet per year. The water level in the lake has been declining gradually as a result of upstream water usage, causing a lack of recharge relative to the rate of evaporation. Between 1950 and 1979, the lake level declined by 44 feet and the south shoreline of Walker Lake receded at a rate of approximately 2 feet per year. The installation captures water in a series of basins located on major creeks in the Wassuk Range. These include Cottonwood, Squaw, and Rose Creeks. Black Beauty Reservoir receives all of this collected water before it is distributed by gravity flow through approximately 250 miles of 4-inch to 12-inch piping.

### 3.3 GEOLOGY

The mountains of the Walker Lake Valley area are composed of detrital, extrusive, intrusive, metamorphic, and carbonate rocks of Mesozoic and Cenozoic age. Volcanic rocks of Mesozoic age occur as andesitic breccias, tuffs, flows, basalt, and rhyolite. Near Hawthorne, these rocks are represented by the Excelsior Formation. The Mesozoic volcanic rocks are extensively metamorphosed and contain some interbedded sedimentary rocks. The sedimentary rocks are present principally southwest of the Town of Hawthorne and include shale, slate, limestone, tuffaceous siltstone, dolomite, sandstone, greywacke, conglomerate, volcanic rocks, and gypsum. In the Hawthorne area, the Mesozoic sedimentary rocks are chiefly represented by the Luning Formation.

Intrusive rocks of Mesozoic age or younger are widespread, with quartz monzonite being the dominant variety. Other intrusive rocks, which occur to a lesser extent, range from granite to gabbro in composition. Granitic rocks underlie the Wassuk Range and may be continuous with the Sierra Nevada batholith. Tertiary deposits include older, partially-altered volcanic rocks containing some mineral deposits. These deposits are overlain in eastern portions of Mineral County by Miocene and Pliocene lacustrine and related continental deposits of the Esmeralda Formation. Most of the Tertiary rocks exposed in the Hawthorne vicinity are post-Esmeralda unaltered volcanic rocks.

The mountain blocks have been extensively faulted and are undergoing continued erosion. This action supplies detritus to the valley floor. A large active fault bounds the eastern margin of the Wassuk Range and is part of the regional Walker Lake fault zone. This faulting has down-dropped the west side of the valley and displaced the axis of the valley westward (Bohm and Jacobson 1977; Boyle Engineering Corporation 1976; Ross 1961). Installation personnel reported a 6-inch displacement in NAD Well No. 4, which was attributed to seismic activity in 1955 (U.S. Army Environmental Health Agency [USAEHA] 1988).

The unconsolidated Quaternary age valley fill material includes alluvial fan, floodplain, windblown channel, lake deposits, terrace gravels, and evaporates. The thickness of the fill is not known. Bohm and Jacobson (1977) speculated that the depth to bedrock may be several thousand feet. NAD Well No. 5 is the deepest in the Walker Lake Valley and was completed to a total depth of 1,008 feet in valley fill material.

Walker Lake is a desiccating remnant of Lake Lahontan. During the Pleistocene, Lake Lahontan periodically inundated most of the valley floor in the Walker Lake Valley. The highest stand of Lake Lahontan was probably about the present elevation of 4,380 feet amsl (Everett and Rush 1967). Fine-grained materials were deposited in the area formerly occupied by the lake.

Well logs from potable water wells drilled in the Walker Lake Valley indicate that gravel, sand, and silt are the dominant stratigraphy from the surface to a depth of almost 500 feet. Pilot borings for monitoring wells were drilled basewide as part of the 1997 groundwater investigation at HWAD. The field crew observed that the shallow stratigraphy consists primarily of sands and silty sands, with one or more clay layers near the lake that collectively are up to 30 feet thick. This clay zone extends up-valley (south) until it pinches out near the center of HWAD and dips gently north toward Walker Lake. Cross-sections show that the clay unit dips somewhat more steeply toward the western side of the Walker Valley. This apparent dip may be associated with subsidence of the valley along the range-front fault near the Wassuk Mountains to the west. The western, northern, and eastern extent of the clay layer was not delineated from the available pilot boring stratigraphic information (Tetra Tech, Inc. 1997).

### 3.4 HYDROGEOLOGY

Walker Lake Valley is underlain by an unknown thickness of alluvial fill. Water wells drilled to depths of more than 1,000 feet did not encounter bedrock. Groundwater occurs in the alluvium under both confined and unconfined conditions. Since Walker Lake Valley is a closed hydrogeologic basin, groundwater losses in the valley are mainly caused by evapotranspiration and groundwater pumping. Small amounts of groundwater are discharged to springs and some may be lost through underflow in the older consolidated rocks. In the valley, groundwater gradients are directed toward the valley axis and Walker Lake. Locally, the gradient may be modified by pumping.

The specific yield of the uppermost 100 feet of saturated material in Walker Lake Valley was reported to average 10 percent and may be as high as 15 percent. The U.S. Geological Survey (USGS) has estimated the storage capacity of the aquifers in this area at 900,000 acre feet. The saturated thickness of several wells near the Town of Hawthorne and in the Whiskey Flats area exceed 300 feet. The safe yield from the aquifer in the area was estimated to be 4,600 acre feet per year. In 1966, the discharge rate for municipal and installation production wells was 2,800 acre feet per year.

The clay unit seen extending southward from Walker Lake forms a confining layer separating a shallower water table aquifer from a water-bearing zone directly beneath the clay unit. The groundwater beneath the clay unit is under confining pressure and the elevation of the piezometric surface of the confined aquifer is higher than the elevation of the static water table. Because the clay most likely represents deposition of fine sediments from Lake Lahontan, it probably extends northward under the present Walker Lake and somewhat beyond.

Depth of groundwater varies from about 5 feet below ground surface (bgs) in the area near Walker Lake to about 250 feet bgs in the Babbitt Landfill Area, northwest of the Town of Hawthorne. Depth to water is greatest in the east-southeast and least near the lake.

The horizontal hydraulic gradient direction is directed from high to low groundwater elevation, perpendicular to piezometric contour lines. During the fourth quarter 2005, the gradient of the groundwater surface for the shallower water table in the eastern part of HWAD was generally toward the west, ranging from 0.006 to 0.023 foot per foot (ft/ft). Groundwater monitoring well locations are shown on Figure 2. Groundwater elevation contours for the shallow wells (water table wells) are shown on Figure 4A. A steeper gradient is found immediately east of the cluster of wells where the groundwater

elevations are around 4,100 feet amsl. West of this area of steeper gradient, the gradient flattens and the hydraulic gradient direction turns more northerly, toward Walker Lake. During the fourth quarter 2005, the gradient magnitude for the shallower water table in this area closer to Walker Lake ranged from 0.005 to 0.008 ft/ft. During the same period, the groundwater gradient magnitude for the confined aquifer in the eastern part of HWAD was westerly, ranging from 0.004 ft/ft to 0.006 ft/ft. Groundwater elevation contours for the confined aquifer wells (Submerged Wells) are shown on Figure 4B. The gradient for the same aquifer in the western part of HWAD was northwesterly, toward Walker Lake, averaging 0.002 ft/ft. Although groundwater elevation data were obtained from only two wells in the Old Bomb Area, it appears that the gradient was northeasterly at approximately 0.015 ft/ft (Figure 4B).

### 3.5 METEOROLOGY

The average annual precipitation at Thorne, located near the northern boundary of HWAD at an elevation of 4,200 feet, was about 3.3 inches, measured between 1884 and 1949. The average precipitation at Hawthorne-Babbitt, also at an elevation of 4,200 feet, was about 4.5 inches, measured between 1937 and 1965. Average monthly precipitation varied from 0.1 to 0.5 inch at Thorne and from 0.2 to 0.7 inch at Hawthorne-Babbitt (Everett and Rush 1967).

Maximum rainfall occurs in late Spring and Fall. The minimum rainfall occurs in July and August. The maximum observed 2-year, 24-hour rainfall was reported to be just over 2 inches. The potential evapotranspiration rate is about 48 inches per year. Average temperatures range from 34 degrees Fahrenheit (°F) in January to 75°F in July (USAEHA 1988).

### 4.0 PREVIOUS INVESTIGATIONS AND SITE DESCRIPTIONS

Environmental investigations have been under way at the HWAD over the past two decades and many groundwater monitoring wells were installed during previous investigations. The following is a summary of these groundwater investigations. However, not all the wells discussed are included in the basewide groundwater monitoring program.

In 1973, HWAD contracted with the USGS to identify the source of nitrate in supply well NAD08 and to investigate potential sources of the contamination (Van Denburgh and Rush 1975). During the study, samples were collected from the wells that supply water to the Town of Hawthorne and HWAD. It was

determined that the Town of Hawthorne sewage treatment ponds were recharging the groundwater in the immediate area and the nitrate probably originated from the recharge water from these ponds.

In 1974, the USGS conducted a hydrogeologic study in the Building 103-41 demilitarization area (Van Denburgh and Squires 1976). During this investigation, nine exploratory wells (USGS4 through USGS12) were drilled and sampled in the vicinity of the disposal ponds associated with the Building 103-41 area. Based on findings during the study, it was concluded that shallow groundwater to 20 feet bgs was contaminated with trinitrotoluene (TNT) at a maximum concentration of 620 µg/L.

In 1976, the USGS conducted a study in the Building 103-16 demilitarization facility to evaluate whether groundwater was contaminated by explosives beneath sludge disposal ponds in this area (Van Denburgh and others 1980a). Eight small-diameter exploratory wells (USGS13 through USGS20) were drilled and sampled during this investigation. Low concentrations of explosives were detected in the groundwater and nitrogen-bearing explosives were found in the unsaturated zone beneath these disposal ponds.

In 1977, the USGS conducted a second study in the Building 103-41 demilitarization area (Van Denburgh and others 1980b). During this investigation, 17 small-diameter wells (USGS21 through USGS37) were installed in and around the wells installed previously to delineate the extent of groundwater contamination. TNT was detected in samples collected from 11 of the 26 wells at a maximum concentration of 400 µg/L.

In 1978, the USGS conducted a third study north of the Building 103-41 area, near the south shore of Walker Lake (Van Denburgh and others 1980c). During this investigation, 29 small-diameter wells (USGS38 through USGS66) were installed downgradient of the Building 103-41 disposal area to assess the extent of groundwater contamination near Walker Lake. The shallowest depth to water was measured at 5 feet bgs. Based on findings during this study, it was concluded that nitrate was migrating in the shallowest groundwater from the disposal ponds in the Building 103-41 area toward Walker Lake in a northwesterly direction. No significant concentrations of explosives were detected.

In 1988, the USACE contracted International Technology Corporation (ITC) to conduct a subsurface investigation of the Mustard Disposal Area, the Group 55/110 Burn Area, and the Old Burn/Old Bomb Test Range (ITC 1989). Wells HWAAP15, HWAAP16, HWAAP17, and HWAAP18 were installed during these investigations in the Group 55/110 Burn Area, and HWAAP02, HWAAP09, and HWAAP10 were installed at the Old Burn/Old Bomb Test Range area. Groundwater samples were collected and analyzed, but no concentrations of explosives were detected.

In April 1989, Day, Zimmermann and Basil contracted with Water Work to perform an initial site assessment at three solid waste management units (SWMUs), B04, B05, and B06, in response to a closure requirement for the former wastewater disposal ponds in the 101 Production Area. This investigation included soil sampling and installing eight monitoring wells at these SWMUs. Generally low concentrations of explosives compounds were detected in the groundwater in the downgradient wells. However, cyclotrimethylenetrinitramine (RDX) was found at a concentration of 4,000 µg/L in upgradient well DZB101-44MW3 at SWMU B04 (WaterWork 1990).

In 1991, HWAD investigated eight underground storage tank sites. Soil and groundwater were investigated at one of these sites, the former location of Building 70, which included installation of one monitoring well (BLDG70MW01) downgradient of the known contaminated soil (Tetra Tech 1995). From 1994 to 1998, the USACE contracted Tetra Tech and Ecology and Environment (E&E) to conduct remedial investigations at 90 SWMUs (Tetra Tech 1998a; E&E 1995a, 1995b, 1997). The objective of the remedial investigations at the SWMUs was to characterize the vertical and lateral extent of contamination, including potential impacts to groundwater. In 1996, as part of these remedial investigations, a basewide groundwater monitoring program was initiated to provide consistent groundwater monitoring at HWAD. Fifty-five groundwater monitoring wells were installed and developed by Tetra Tech as part of this plan. These monitoring wells and 23 existing monitoring wells from previous investigations were sampled during four quarterly sampling events in 1997. The number of wells sampled and the analytical suite in 1997 varied from quarter to quarter, based on the results of the previous sampling events. Seventy-five wells were sampled in the first quarter, 66 wells were sampled in the second quarter, 36 wells were sampled in the third quarter, and 39 wells were sampled in the fourth quarter. Groundwater elevation data were collected from all of the wells for basewide comparison between each sampling event.

The results of the 1997 quarterly monitoring events identified several areas potentially affected by explosives or VOCs. Groundwater samples from monitoring wells IRPMW02 (SWMU B29) and DZB101-44MW3 (Area 101 EAST) contained explosives, and groundwater samples from monitoring wells IRPMW42 through IRPMW48 (SWMUs J12/H04), IRPMW16 through IRPMW20 (wastewater treatment facilities), IRPMW37 (Area 101 EAST), and IRPMW50 (SWMU I09/I10) contained VOCs.

In August 2001, the NDEP requested that HWAD install and sample groundwater monitoring wells at Sites SWMU B04, SWMU B20, and SWMU I09/I10 for additional groundwater characterization. In August 2002, as a joint venture, Forsgren Associates and Brown and Caldwell installed four monitoring

wells: IRPMW56 (SWMU B04), IRPMW37A (SWMU B20), IRPMW50A, and IRPMW50B (SWMU I09/I10).

Groundwater from these four wells was sampled for the first time in September 2002. Subsequent groundwater monitoring in these four wells was conducted in 2002, 2003, and 2005. During the September 2002 sampling event, VOCs were detected in samples from all four monitoring wells. Explosives and ammonium picrate were detected in the samples from two wells (IRPMW56 and IRPMW37A). Nitrate/Nitrite-N and ammonia were detected in all four wells (Forsgren Associates/Brown and Caldwell 2002).

Details of the 1997 and 2003 groundwater monitoring results for the associated sampling events are reported in the 1997 Annual Ground Water Monitoring Report (Tetra Tech, Inc. 1998a) and the Annual 2003 Groundwater Monitoring Report (Tetra Tech 2004). Previous and current groundwater monitoring data for wells sampled at HWAD are discussed in Section 8.2 of this report.

## **5.0 PURPOSE AND SCOPE**

In September 2005, Tetra Tech was contracted by the USACE, Sacramento District, to assist the Department of the Army in continued groundwater monitoring at HWAD. This work is conducted under the authority of the Defense Environmental Restoration Program for the Installation Restoration Program. Under the scope of work, Tetra Tech conducted groundwater monitoring at 70 of the 81 groundwater wells selected for sampling at HWAD from November 29 through December 16, 2005. Eleven of the 81 wells were either not found or were not accessible for sampling by truck-mounted equipment during the 2005 sampling event. The purpose and scope of this annual report is to present data collected during the 2005 groundwater monitoring event at HWAD and to provide a projection of the 2006 annual sampling.

## **6.0 SAMPLING CRITERIA AND SAMPLE SELECTION 2005**

This section describes the sampling criteria for monitoring the 81 wells that were selected for monitoring during the 2005 groundwater monitoring event at HWAD and the selection criteria for wells to be sampled during the 2006 event. Figure 2 shows the 81 wells in the HWAD basewide groundwater monitoring program. Figure 3 provides the well locations and the associated solid waste management unit at HWAD. Figure 4A is the 2005 groundwater elevation contour map for the water table wells and

Figure 4B is the groundwater elevation contour map for the submerged wells. Figure 5 is a distribution map of the compounds that were detected as a result of the 2005 groundwater monitoring event. Figures 6 through 16 show the 81 wells, by SWMU, in the HWAD basewide groundwater monitoring program. Table 1 lists the well name or point identification, well type, the well site identification, well survey data, including top of casing (TOC) elevations, and the most current groundwater elevation for each well.

One-hundred and nineteen wells have been installed at HWAD during previous groundwater investigations. Thirty-eight of these have been destroyed or abandoned. Some wells have been consistently sampled during their existence, while some have not.

A comprehensive plan was developed to provide a justifiable methodology for basewide groundwater monitoring because of the volume of historical data, number of groundwater monitoring wells, well locations, construction details, and sampling history. The criteria used to determine which wells are sampled, the frequency of sampling, and the analytes tested for in each well are based on the logic presented on the flow chart provided as Figure 17. These criteria may be used through time to adjust the sampling plan based on changing site conditions. Each chemical of concern (COC) per well was tested against the logic of the flow chart. As a result, each COC per well was assigned to one of five categories; removal from the program, sample annually, sample every 2 years, sample every 4 years, or suspend sampling.

For the 2005 monitoring event, 81 wells were selected to be sampled for VOCs, explosives, and nitrates (see Table 2). Wells and analytes were selected based on the Groundwater Monitoring Program Criteria flow chart (see Figure 17) and the Basewide Groundwater Monitoring Program Criteria Data provided in Table 3. Based on historical information and as recommended in Section 2.5.1 of the Final Work Plan for Basewide Groundwater Monitoring (Tetra Tech 2006a), well HWAAP02 would also be sampled for 4,4-dichlorodiphenyltrichloroethane (4,4-DDT [an organochlorine pesticide]) and polychlorinated biphenyls (PCBs). Also as stated in Section 2.5.1 of the Final Work Plan for Basewide Groundwater Monitoring (Tetra Tech 2006a), 4,4-DDT and PCBs are not considered to be COCs for this area but are recommended to be sampled in order to establish a baseline for these analytes. This sampling event would provide a baseline for determining future well sample frequency and analysis.

The Groundwater Monitoring Program Criteria flow chart progression is described in the following paragraphs. Based on the analytes, groundwater monitoring results, and contaminant history, the COCs

identified in groundwater include explosives, nitrates, and VOCs. The flow chart begins in diamond 1 with a review of all historical data and evaluates whether the data can be tied to an existing well. If the well no longer exists or cannot be located, the well is removed from the monitoring program.

The second step of the flow chart (diamond 2) is designed to retain perimeter wells in the monitoring program. Certain wells have been designated as perimeter wells based on their location relative to base boundaries and groundwater flow. These wells are located where monitoring upgradient or downgradient water quality relative to the boundaries of the base is required (to identify the contaminants that may be coming onto or leaving the base).

The third step on the flow chart (diamond 3) determines if annual sampling of an analyte is required based on the number of times COCs have been detected above the HWAD AL. If a COC has been detected above the HWAD AL in more than 30 percent of the sampling events, the well will be sampled annually. The 30-percent criterion was selected as a conservative value to ensure that the maximum number of analytes will be tested in the wells.

The fourth screening step in the flow chart (diamond 6) evaluates whether bi-annual sampling (every 2 years) is required based on the number of times COCs have been detected at a concentration above the HWAD AL. If a COC has been detected above the HWAD AL less than 30 percent of the sampling events, then the well will be sampled every 2 years.

The fifth screening step (diamond 8) is used to evaluate whether sampling every 4 years is required or if a recommendation to the NDEP should be made to suspend the well from the monitoring program. If analytes have not been detected at concentrations above the HWAD ALs and if the well has been sampled a minimum of five times, then a recommendation to the NDEP may be made to suspend the well from the program. Conversely, if analytes have been detected at concentrations above the HWAD ALs in the well or if the well has not been sampled five times, then a 4-year monitoring interval is recommended.

A professional judgment step was included in the flow chart after each decision stage to subjectively analyze site-specific conditions. The professional judgment step includes criteria such as status of the SWMU, historical use of the area, remedial action at the SWMU, collocated wells, upgradient or downgradient wells, previous detections, double-screened wells, abandoned or destroyed wells, and wells necessary for perimeter monitoring. Table 7 summarizes the recommended sample frequency and analysis for the 2006 monitoring event, derived from the 2005 data.

In order to determine the sampling recommendations for 2006, the historic and 2005 data were analyzed using the Basewide Groundwater Monitoring Program Criteria Data (Table 3) and the Basewide Groundwater Monitoring Program Criteria flow chart (Figure 17). The result is Table 7 (2006 Groundwater Monitoring and Analysis Schedule) which summarizes the recommended sampling frequency and analysis for 2006 and the recommendations for the 2006 sampling event are presented in Section 10.0.

## **7.0 FIELD ACTIVITIES AND METHODS**

This section summarizes the field activities and methods used during the 2005 groundwater monitoring event at HWAD. The activities were in accordance with the approved "Final Work Plan for Basewide Groundwater Monitoring" (Tetra Tech 2006a) and the purging and sampling procedures described in Appendix B, which are from the "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures" (USEPA 1996). Figure 2 identifies the locations of the 81 groundwater monitoring wells in the HWAD basewide groundwater monitoring program. Fieldwork for this monitoring program was conducted between November 29 and December 16, 2005.

### **7.1 GROUNDWATER LEVEL MEASUREMENTS**

Depth-to-water (DTW) and total depth measurements were collected at 81 groundwater monitoring wells from November 29 through December 2, 2005. DTW was also measured at each well prior to sampling to the nearest 0.01 foot using an electronic water-level indicator from the surveyed measuring point at the top of each well casing. If no surveyed measuring point was visible, the static water level was measured from the north side of the well casing. Table 1 summarizes the static water levels measured at each well during the 2005 event, and Table 4 summarizes water-level data collected since 2002.

Well IRPMW03 is an artesian well; therefore, the water level was not measured. In well IRPMW04, an obstruction was encountered at the groundwater surface (20.68 feet below top of casing). Based on the depth of the obstruction and debris found on the water-level meter, it appears that roots or other organic matter is present at the groundwater level. The water-level data recorded at this well may have been affected by the obstruction and was not used to determine groundwater contours and gradients. Well HWAAP02 was dry at 200.49 feet below top of casing. The water-level data recorded at well DZB101-15MW6/7 is the first encountered water level interval, since this well has a packer installed in it.

A summary of groundwater elevations calculated from the static water levels measured during the 2005 monitoring event, well construction data, and groundwater elevation data from the last four monitoring events are summarized in Table 4. The groundwater elevations for the November/December 2005 monitoring event were contoured and groundwater flow directions interpreted on Figures 4A and 4B.

## 7.2 GROUNDWATER SAMPLING

Prior to purging each well, field personnel measured concentrations of airborne VOCs at each wellhead using a photoionization detector (PID). VOCs were monitored at each wellhead for sampling crew health and safety evaluation as required by the Site-Specific Health and Safety Plan (Tetra Tech 2006b). Monitoring results were used to determine the appropriate level of personal protective equipment required to conduct the sampling. The PID readings ranged from 0.0 parts per million (ppm) to 16.9 ppm. Well BLDG70MW01 had the highest PID reading during the 2005 monitoring event. Before sampling started at well BLDG70MW01, the well was left open to vent for 10 to 15 minutes before purging began, the samplers worked up-wind from the well casing, and the breathing zone was monitored throughout the purging and sampling process. The PID readings are included on the groundwater sampling data sheets provided in Appendix C.

Following the Final Work Plan for Basewide Groundwater Monitoring Program (Tetra Tech 2006a), groundwater samples were collected from 70 (IRPMW01, IRPMW02, IRPMW04 through IRPMW07, IRPMW08A, IRPMW09 through IRPMW37, IRPMW37A, IRPMW38 through IRPMW50, IRPMW50A, IRPMW50B, IRPMW51, IRPMW52, IRPMW56, BLDG70MW01, DZB101-13MW4, DZB101-13MW5, DZB101-13MW8, DZB101-44MW1, DZB101-44MW2, DZB101-44MW3, HWAAP09, HWAAP10, HWAAP15, HWAAP16, HWAAP17, HWAAP18, USGS103-41MW23, and USGS103-41MW25) of the 81 groundwater monitoring wells during the 2005 monitoring event at HWAD. Tetra Tech field personnel were not able to collect groundwater samples from 11 monitoring wells (IRPMW03, HWAAP02, DZB101-15MW6/7, USGS103-41MW01, USGS103-41MW04, USGS103-41MW07, USGS103-41MW12, USGS103-41MW14, USGS103-41MW18, USGS103-41MW20, and USGS103-41MW21). Well IRPMW03 is an artesian well. Well HWAAP02 was dry, and a packer is installed in well DZB101-15MW6/7. The integrity of the packer is in question and the well is to be abandoned in 2006. USGS103-41MW14 could not be located. The remaining "USGS103-41" wells were not accessible by sampling vehicles and the overall well conditions were found to be not suitable for sampling. These wells include the USGS41 series wells which have been located, are scheduled to be replaced and were determined to be unsuitable for sampling. This information can be found in the Draft

Final Well Inventory Summary Report (Tetra Tech 2006b). Access to the new wells will not be an issue in the future.

Several wells were resampled because the hold times for Nitrate as N and Nitrite as N were exceeded by the laboratory. This was due to a landslide on the road to Hawthorne which caused a courier to be late and a subsequent late delivery of the samples to the lab by FEDEX. The USACE was notified of the sampling issues. The USACE approved the re-sampling of the wells for those analytes. Due to this event, wells HWAAP09 and HWAAP10 were resampled on December 8, 2005; wells IRPMW07, IRPMW08A, IRPMW14 (normal sample and a duplicate sample), and IRPMW15 were resampled on December 13, 2005.

Sample collection methods are discussed in the following sections. Groundwater sampling data sheets completed by Tetra Tech field personnel during the 2005 monitoring event are provided in Appendix C.

#### **7.2.1 Low-Flow (“micro-purge”) Purging and Sampling**

During the 2005 groundwater monitoring event, the 70 wells were purged and sampled using a “QED” 1.75-inch Sample Pro<sup>®</sup> bladder pump and dedicated, well-specific, polyethylene tubing consisting of 0.17-inch inside diameter (ID) and 0.25-inch outer diameter (OD) discharge line bonded to 0.17-inch ID and 0.25-inch OD air lines. Low-flow “micro-purge” techniques accepted by the NDEP and developed by the EPA were followed. The procedures used are described in Appendix B from the EPA’s “Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures” (USEPA 1996).

To ensure proper placement of the pump intake, the pump and dedicated tubing were inserted down the well slowly by hand along with a water-level meter from the surveyed measuring point at the top of each well casing. The pump and water-level meter were decontaminated prior to insertion into the well, following the methods described in Section 7.5. Once the pump intake reached the middle of the wetted-screen interval, the dedicated pump tubing was secured to the top of the well casing using a clamp and then attached to a flow-through cell equipped with a water-quality meter probe. One end of a disposable piece of polyethylene tubing was attached to the discharge port of the flow-through cell. The other end of the disposable tubing was inserted into the top of purge bucket used for monitoring purge volumes.

The required purge volume was calculated using the equation provided in Appendix B. The initial purge volume is used to purge stagnant water from the pump bladder and the tubing between the ground surface

and the bladder pump. The static groundwater level measurements included on the data sheets (Appendix C) were collected just before purging began. One pump and tubing volume were purged before initial field parameter measurements was recorded. A "Horiba U-22" multprobe in-line water quality meter with a flow-through cell was used to monitor temperature, conductivity, pH, turbidity, and dissolved oxygen. Following the low-flow purging procedures, water quality field parameters were then collected at 5-minute intervals. Stabilization was considered achieved after a minimum of three readings, spaced 5 minutes apart, had been taken and the last three readings were within  $\pm 0.2$  for pH,  $\pm 3$  percent for conductivity,  $\pm 10$  percent for turbidity,  $\pm 0.2$  for dissolved oxygen, and  $\pm 2$  degrees Celsius for temperature (USEPA 1996). A purge rate goal of 0.5 liter per minute or less was used. After the water quality parameter stabilization criteria were satisfied, the outlet end of the dedicated pump tubing was disconnected from the flow-through cell. Groundwater samples were then collected from the outlet end of the dedicated pump tubing.

Tetra Tech used the methods described above to purge and collect samples from all 70 monitoring wells during the November/December 2005 monitoring event. The procedures and stabilization criteria vary slightly from low-flow sampling with a bladder pump to sampling with a submersible electric pump. The stabilization criteria used by Tetra Tech for the low-flow bladder pumps comes from the EPA's "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures" (USEPA 1996).

The stabilization criteria suggested in the EPA document are guidelines used to provide purge rate and volume estimates based on experience. Based on Tetra Tech's experience with low-flow sampling, the stabilization criteria used provided consistent results and do not cause significant pressure or physical changes to the sample water during the purging and sampling.

The 1996 EPA document states that "Purging with high speed pumps can cause adverse impacts on sample quality through collection of samples with high levels of turbidity." Also, "The use of inertial lift foot-valve type samplers may cause too much disturbance at the point of sampling." In using the electric submersible pumps, the lowest purge rate able to be achieved, with the depths of the water at HWAD, is around 0.5 to 1 gallon per minute. The low-flow bladder pumps that were used purged at a rate of 0.5 liter per minute, with little or no disturbance to the formation.

### **7.3 SAMPLE HANDLING AND DOCUMENTATION**

After groundwater samples were collected, the samples were immediately placed in an ice chest packed with water-ice. Groundwater samples remained with Tetra Tech until they were delivered to Federal Express in Reno, Nevada, by a local courier. Chain-of-custody records were maintained and accompanied the samples from collection to delivery to Federal Express and receipt by the project laboratory, Applied Physics and Chemistry Laboratory (APCL) in Chino, California. Copies of chain-of-custody records are provided in Appendix D.

### **7.4 SAMPLE QUALITY ASSURANCE AND QUALITY CONTROL**

During the November/December 2005 monitoring event at HWAD, Tetra Tech collected samples for quality assurance and quality control (QA/QC) purposes. The types of QA/QC samples that were collected included trip blanks, field duplicates, equipment rinseates, and matrix spike/matrix spike duplicates (MS/MSDs). For trip blanks, two 40-milliliter volatile organic analysis vials filled with deionized water supplied by the laboratory were kept in each sample ice chest during the field sampling and shipment to the laboratory. These trip blanks were analyzed for VOCs along with the collected groundwater samples. Field duplicate samples were collected by filling a second respective sample container for each analysis at the time of sampling. Temperature blanks were also included in each cooler sent to the project laboratory. Equipment rinseate samples were collected by slowly pouring deionized water over or through the decontaminated sampling equipment and then into sample containers. One equipment rinseate sample was collected by each of the two sample teams each day. MS/MSD samples were collected at the rate of 5 percent of the primary samples by collecting twice the volume of the primary sample. Equipment decontamination procedures are described in Section 7.5.

### **7.5 DECONTAMINATION PROCEDURES**

During each monitoring event, after each static groundwater level measurement, the water-level meter was sprayed with Liquinox®, a non-phosphate detergent, and rinsed with deionized water. After completing sampling at each well and before sampling at another well, the low-flow bladder pump was disassembled, scrubbed with Liquinox®, and thoroughly rinsed with deionized water. The disposable bladder inside the bladder pump was replaced after use at each well. The tubing used in tandem with the bladder pump to purge and sample each well is dedicated to each well. Therefore, there is no need to

decontaminate the tubing after each use. The tubing, when not in use, is placed inside a plastic bag, inserted into a bucket with an airtight lid, and stored at an off-site facility.

#### **7.6 INVESTIGATION-DERIVED WASTE**

Well purge water and decontamination fluids (wastewater) generated during the 2005 monitoring event were stored in 5-gallon buckets positioned at a central location, pending receipt of the laboratory analytical results. After analytical results were received, the investigation-derived waste (IDW) generated during the 2005 event was transferred to U.S. Department of Transportation-specified 55-gallon drums and disposed of by Philip Services of Fernley, Nevada. Waste acceptance documentation is included in Appendix E. Solid IDW generated from sampling (disposable gloves and pump tubing) was disposed of in appropriate waste bins on base.

#### **7.7 SUMMARY OF FIELD ACTIVITIES**

This section summarizes the wells that were not sampled, analyses not performed, and changes to the sampling schedule during the 2005 groundwater monitoring event at HWAD.

- HWAAP02 was not sampled because it was dry.
- Well IRPMW03 is an artesian well and was removed from the sampling program.
- Water level data from IRPMW04 was not used for contouring due possible roots in the well.
- DZB101-15MW6/7 is one well separated by a packer in the well. Because there is no information regarding the condition or design of the packer, HWAD, the NDEP, and USACE determined the results of the sampling would be invalid and requested to not have the well sampled. This well is scheduled to be abandoned in 2007.
- Tetra Tech field personnel were not able to collect groundwater samples from wells USGS103-41MW01, USGS103-41MW04, USGS103-41MW07, USGS103-41MW12, USGS103-41MW18, USGS103-41MW20, and USGS103-41MW21 due to lack of access and because overall well conditions were found unsuitable for sampling. This information can be found in the Draft Final Well Inventory Summary Report (Tetra Tech 2006b).
- USGS103-41MW14 is abandoned.
- Wells IRPMW53, IRPMW54, IRPMW55 were not found during the well inventory and are abandoned.

- Perchlorate analysis was not performed as it was not included in the Final Work Plan for Basewide Groundwater Monitoring (Tetra Tech 2006a).
- Wells HWAAP09 and HWAAP10 were resampled on December 8, 2005 and wells IRPMW07, IRPMW08A, IRPMW14 (normal sample and a duplicate sample), and IRPMW15 were resampled on December 13, 2005. Resampling was conducted because the hold times for Nitrate as N and Nitrite as N were exceeded. Transportation issues caused subsequent late delivery of the samples to the lab by FEDEX. The USACE approved the re-sampling of the wells for those analytes.

## 8.0 ANALYTICAL RESULTS AND FIELD MEASUREMENT DATA

This section summarizes the results of laboratory analyses and field parameter measurements collected at HWAD during the 2005 groundwater monitoring event. Emphasis is placed on laboratory analytical results that exceeded ALs. Table 5 summarizes laboratory analytical results and ALs that were exceeded for the 2005 event. The previous four groundwater monitoring events were conducted in November 2002, February 2003, May 2003, and August 2003. The data from these prior events are summarized in Table 6.

### 8.1 SUMMARY OF DATA QUALITY ASSESSMENT

Groundwater samples were shipped to APCL and analyzed using appropriate EPA analytical methods. APCL submitted the resulting data under Sample Delivery Groups WAB01 through WAB16. An independent contractor, Laboratory Data Consultants, Inc., of Carlsbad, California, conducted data validation in accordance with the procedures outlined in the following documents:

- *National Functional Guideline of Organic Data Review* (USEPA 1999)
- *National Functional Guideline of Inorganic Data Review* (USEPA 1994)
- *Final Work Plan, Basewide Groundwater Monitoring Program* (Tetra Tech, Inc. 1998b)
- *Final Quality Assurance Project Plan, Basewide Groundwater Monitoring Program* (Tetra Tech, Inc. 1998c)
- *Environmental Data Quality Management Program Specifications, USACE Sacramento District, Version 1.08* (1999)

The purpose of the data validation is to ensure and confirm the integrity and reliability of the laboratory data resulting from the groundwater monitoring efforts. In accordance with the guidance listed above,

professional judgment was also used concerning laboratory practices, project objectives and matrix interferences. The following paragraphs highlight the key findings from the 2005 groundwater monitoring event.

#### **8.1.1 Analysis Holding Time Requirements**

The 48-hour analysis holding time requirement for nitrate as nitrogen and nitrite as nitrogen was met with the exceptions listed below:

- The sample IRPMW15-120105-WER exceeded the holding time requirement by 0.5 hours.

The detected results for nitrate as nitrogen were qualified as estimated with a “Jh” qualifier and the “non-detected” results for nitrite as nitrogen were qualified as estimated with a “UJh” qualifier. The impact on the data objectives is minimal, if any, during the course of the ongoing monitoring effort. This is because this sample is an equipment rinseate.

#### **8.1.2 Practical Quantitation Limits**

When the PQLs for non-detected results exceeded the action level, the data were re-evaluated at the MDL to more closely meet project sensitivity requirements. When non-detected analytes are reported with elevated PQLs because a detected analyte was found at a high concentration, the detected analyte is normally the risk driver and the non-detected compounds are not considered chemicals of concern in a risk assessment. The PQLs for analytes were below the ALs with the exceptions listed below:

- The 2-amino-4,6-dinitrotoluene (2-amino-4,6-DNT) PQL for samples collected during the November/December 2005 event exceeded the AL. The action level cannot be achieved by approved analytical methods. This compound does not have a specific PRG or MCL. The AL for 2-amino-4,6 DNT is the  $10^{-6}$  cancer risk concentration PRG for DNT mixtures in tap water. PRG concentrations are based on risk concentrations and are not limited to minimum concentrations attainable by current technology. Non-detected 2-amino-4,6-DNT results were evaluated at the MDL.
- The PQLs for 1,3-dinitrobenzene, nitrobenzene, 4-amino-2,6-dinitrotoluene (4-amino-2,6-DNT), and 2,4,6-TNT in the samples from wells IRPMW56 and DZB101-44MW3 exceeded the ALs. The PQLs were elevated due to necessary sample dilution because of high concentrations of RDX reported in the samples at 329  $\mu\text{g/L}$  and 443  $\mu\text{g/L}$ , respectively. Since RDX is found at such high concentrations, it is the primary driver at these locations. Elevated PQLs/MDLs for non-detected analytes due to necessary dilution are common when one analyte is present at such a high concentration. The sample dilution and elevated PQLs are further explained in Section 8.2.1.
- The PQL for picric acid in the sample collected from well IRPMW38 exceeded the AL. The PQL was elevated due to limited sample volume.

- The PQLs for 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, bromodichloromethane, dibromochloromethane, chloromethane, 1,3-dichloropropane cis-1,3-dichloropropene, trans-1,3-dichloropropene and hexachlorobutadiene exceeded the ALs. However, the method detection levels (MDLs) for all except 1,1,2,2-tetrachloroethane, were below their respective ALs. Analytes detected below the PQL and above the MDL are reported as estimated values. These compounds were not detected during this sampling event except for bromodichloromethane and dibromochloromethane. The concentrations reported for bromodichloromethane and dibromochloromethane are below their PQLs and were qualified as estimated with a "J,g" qualifier.
- The PQL for nitrite as N in the sample collected from well IRPMW02 exceeded the AL. The PQL was elevated because the sample was diluted due to the high concentration of nitrate. The sample was diluted during the anion analyses in order to quantify the nitrate concentration in the linear range of the standard calibration curve. Elevated PQLs/MDLs for non-detected analytes due to necessary dilution are common when one analyte is present at such a high concentration.

### 8.1.3 Qualified Analytical Results

The qualified analytical results are considered to be usable and none of the analytical data were rejected by the data validators. Analytical results below the PQLs were qualified as estimated with a "Jg" qualifier. Ammonium as N, total kjeldahl nitrogen as N, nitrate as N, and dichloromethane results flagged with "Ub" qualifier are considered as "non-detected" due to method blank or equipment rinseate contamination. Low TKN, ammonium as N, and nitrate as N concentrations were detected in equipment rinseates. This may indicate the need for additional rinses during equipment decontamination or low concentrations of nitrogen compounds in the water used for the decontamination. In each instance discussed above for samples with "Ub" qualifiers, the analytical results are below the associated AL or there is no AL and have little, if any, impact on data quality objectives. Equipment rinsates were collected at a higher frequency in 2006 than in previous sampling events, but analytes were rarely detected in historical equipment rinsates. The project laboratory reported TKN slightly above the reporting limit in one equipment rinsates in 2002, and nitrate as nitrogen slightly above the reporting limit in 2003. The complete data validation reports are provided in Appendix F.

## 8.2 LABORATORY ANALYTICAL RESULTS

Discussion of laboratory results is organized according to the following chemical groups: explosives, VOCs, nitrogen compounds, and pesticides. Appendix D contains a complete set of the analytical results reported by APCL. Figure 5 is a distribution map of the compounds that were detected as a result of the 2005 groundwater monitoring event. Figures 6 through 16 also indicate the compounds that were

detected in samples collected from the 70 sampled wells, organized by SWMU, during the 2005 groundwater monitoring event. Table 5 summarizes the positive analytical results and analytical results that exceeded the respective ALs. Table 6 summarizes the historical and most recent analytical results for selected compounds in groundwater.

The laboratory reported the PQL of 1 µg/L for explosives in the data summary report provided in Appendix F. As a result, the laboratory was asked to report the MDLs for the explosive compounds 2-amino-4,6-DNT, 4-amino-2,6-dinitrotoluene, and RDX, because their PQLs were above the respective ALs. In general, the PQL is greater than the MDL. Appendix A summarizes the ALs for the constituents that were analyzed for in the samples collected at HWAD. If the laboratory detects a chemical at a concentration between the MDL and PQL, the value is estimated and it is assigned a "J" qualifier (see Table 5). However, if a chemical is not detected, the laboratory reports the result as less than the PQL, signified with the "U" flag. For selected analytes where the PQL is greater than the AL, the MDL is shown in the laboratory's data summary report in place of the PQL. The data summary report is included in the data package submitted by the laboratory.

### 8.2.1 Explosives

The explosive RDX was detected in groundwater samples collected from monitoring wells IRPMW37A (2.4 µg/L), IRPMW56 (329 µg/L), and DZB101-44MW3 (443 µg/L) in December 2005. At all three wells, the RDX concentrations were detected above the AL of 0.61 µg/L. The MDL reported by APCL for RDX in December 2005 is 0.25 µg/L. However, for wells IRPMW56 and DZB101-44MW3, APCL diluted the sample by a factor of 10 because of the high concentration of RDX. As a result, the reporting limits for other explosives compounds in the sample from wells IRPMW56 and DZB101-44MW3 were increased by a factor of 10 (see Table 5). During the December 2005 sampling event, RDX was detected for the first time in well IRPMW37A (see Table 6).

RDX has been detected above the AL in well IRPMW56 in each of the five times it has been sampled (see Table 6). During the four previous monitoring events, the concentration of RDX in samples collected from well IRPMW56 ranged from 658 µg/L to 947 µg/L, with no significant increasing or decreasing trend observed. The RDX concentration observed in samples collected from well IRPMW56 in August 2003 (947 µg/L) was the highest RDX concentration found at this well. RDX has been detected above the AL in well DZB101-44MW3 in each of the 20 times it has been sampled, including

December 2005. RDX concentrations in samples collected from well DZB101-44MW3 have ranged from 302 µg/L (May 2003) to 5,600 µg/L (September 1998), since the first sampling event in October 1997. With the exception of DZB101-44MW2, IRPMW02, and IRPMW35, RDX was not detected above the PQL in samples collected from any other wells monitored during the 2002, 2003, and 2005 events. RDX was detected in DZB101-44MW2 at a concentration of 1.8 µg/L (May 2003), in IRPMW02 at 0.8J µg/L (February 2002), and IRPMW35 at 4.06 µg/L (May 2003).

The explosive TNT and two daughter products, 2-amino-4,6-DNT and 4-amino-2,6-DNT, were detected above their respective ALs in the sample collected from well IRPMW02 during the 2005 event. TNT was detected at 9.8 µg/L and 2-amino-4,6-DNT and 4-amino-2,6-DNT were detected at 3.2 µg/L and 15.6 µg/L, respectively. The AL for TNT is 2.2 µg/L and the AL for 2-amino-4,6-DNT and 4-amino-2,6-DNT is 0.099 µg/L. The TNT daughter product 2,4-DNT was detected above the PQL of 1 µg/L, but below the AL of 73 µg/L in the sample collected from IRPMW02 (2.4 µg/L).

Since January 1997, the explosive TNT and its two daughter products have been consistently detected above their respective ALs in samples collected from well IRPMW02 (see Table 6). The TNT concentrations have ranged from an estimated value of 0.6 µg/L (March 1998) to 40 µg/L (July 1997). Concentrations of 2-amino-4,6-DNT have ranged from not detected above the MDL (April 1997 and March 1998) to 6.5 µg/L (January 1997). Concentrations of 4-amino-2,6-DNT have ranged from not detected above the MDL (April 1997) to 18.7 µg/L (May 2003). Concentrations of the third daughter product from TNT, 2,4-DNT, were reported as not detected at an elevated PQL of 110 µg/L in well IRPMW56 in November 2002. No significant upward or downward trend in concentrations of TNT or its three daughter products were observed. Concentrations of TNT, 2-amino-4,6-DNT, and 4-amino-2,6-DNT were not detected above their PQLs in samples collected from the other wells monitored during the 2002, 2003, and 2005 events. Concentrations of 2,4-DNT were not detected above the AL in the other samples collected from the wells monitored during the 2002 and 2003 events.

Picric acid, expressed as ammonium picrate, is a contaminant of concern based on results of previous groundwater monitoring at HWAD. Picric acid was not detected above the MDL or AL of 1.0 µg/L in the wells monitored during the 2002, 2003, and 2005 events. Laboratory results for picric acid are mathematically converted to and reported as equivalent ammonium picrate results because ammonium picrate was the compound used at HWAD. The laboratory uses a picric acid reference standard to quantify results. However, picric acid and ammonium picrate both ionize completely to the picrate ion during analysis. Because the picrate ion is the chemical constituent that is actually measured during

analysis, the laboratory's picric acid results are converted to ammonium picrate. This conversion assumes that any picrate detected upon analysis originated from ammonium picrate. If picric acid is not detected during analysis, the detection limit is multiplied by the conversion factor (1.07) to represent the detection limit for ammonium picrate. At the USACE's request, the laboratory's picric acid results have been converted to ammonium picrate to more accurately represent contamination at the site.

### 8.2.2 Volatile Organic Compounds

No VOCs were detected above their PQLs in trip blank (QA/QC) samples submitted during the November/December 2005 monitoring event. Analytical results for duplicate samples collected during the 2005 events are similar to the results of their respective primary field samples.

Trichloroethene (TCE) was detected above the AL of 5 µg/L in samples collected from wells IRPMW37 (6.6 µg/L), IRPMW50 (11 µg/L), IRPMW50A (232 µg/L), and IRPMW50B (5.1 µg/L) during the 2005 monitoring event (see Table 5). In each of the 22 monitoring events since January 1997, including December 2005, TCE has been consistently detected above the AL in samples collected from wells IRPMW37 and IRPMW50. Concentrations of TCE detected in samples collected from well IRPMW37 have ranged from 7.6 µg/L (May 2001) to 177 µg/L (November 1999) with no significant increasing or decreasing trend observed (see Table 6). Concentrations of TCE detected in samples collected from well IRPMW50 have ranged from 18 µg/L (May 2000 and May 2001) to 34 µg/L (August 2000) with no significant increasing or decreasing trend observed.

In the five monitoring events since November 2002, TCE has been consistently detected above the AL in samples collected from wells IRPMW50A and IRPMW50B. Concentrations of TCE detected in samples collected from well IRPMW50A have ranged from 213 µg/L (November 2002) to 253 µg/L (May 2003) with no significant upward or downward trend observed. Concentrations of TCE detected in samples collected from well IRPMW50B have ranged from 5.1 µg/L (December 2005) to 13 µg/L (February 2003) with an apparent decreasing trend. Concentrations of TCE were reported above the PQL, but below the AL, in samples collected from IRPMW16 since 1997, with two exceptions. TCE was reported above the AL in samples collected from IRPMW16 in February 1999 (9.2 µg/L) and November 1999 (5.5 µg/L). TCE was not detected above the AL in samples collected from the other wells monitored during the 2002, 2003, and 2005 events.

During the 2005 monitoring event, 1,2-dichloroethane (1,2-DCA) was detected at the PQL of 2 µg/L in the sample collected from well IRPMW50A. Concentrations of 1,2-DCA have been detected above the PQL in samples collected from well IRPMW50A during each of the five monitoring events since November 2002, but 1,2-DCA was not detected above the AL of 5 µg/L. Concentrations of 1,2-DCA were not detected above the PQL in samples collected from the other wells monitored during the 2002, 2003, and 2005 events.

Tetrachloroethene (PCE) was not detected above the PQL of 2 µg/L in the wells sampled during the 2005 monitoring event (see Table 5). PCE was detected at the PQL in the sample collected from well IRPMW16. PCE was detected at estimated values below the PQL in the following samples: IRMW04 (1 µg/L), IRPMW05 (2 µg/L), IRPMW14 (0.6 µg/L), IRPMW15 (0.6 µg/L), IRPMW17 (1 µg/L), IRPMW18 (0.5 µg/L), IRPMW20 (0.6 µg/L), IRPMW50A (0.4 µg/L), and USGS103-41MW23 (0.4 µg/L). During the November 2002 and May 2003 events, PCE was detected at the estimated value of 2 µg/L in samples collected from IRPMW05 and IRPMW17. PCE was detected at estimated values below the PQL of 2 µg/L in samples collected from wells (IRPMW05, IRPMW14, IRPMW15, IRPMW17, IRPMW18, IRPMW20, IRPMW50A) during the May 2003 event and in IRPMW50A during the August 2003 event. Concentrations of PCE were not detected above the PQL in the other samples collected during the November 2002 and February 2003 events. The PCE concentrations detected in samples collected from wells at HWAD since November 2002 have been below the AL of 5 µg/L. Since 2002, the highest concentration (3.0 µg/L) of PCE was detected in the sample collected from monitoring well IRPMW16 in May 2003.

Bromodichloromethane was detected at estimated concentrations above the AL of 0.18 µg/L in samples collected from wells IRPMW42 (0.3 µg/L), IRPMW44 (0.5 µg/L), IRPMW47 (0.3 µg/L), and IRPMW48 (0.3 µg/L) during the 2005 event. Bromodichloromethane was not detected above the PQL in samples collected from the wells that were monitored during the 2005 event. Bromodichloromethane was detected at an estimated concentration above the AL of 0.18 µg/L in the sample collected from well IRPMW45 (0.6 µg/L) during the May 2003 event. Bromodichloromethane has not been detected above the PQL in the other wells that were sampled during the 2002 and 2003 monitoring events.

Dibromochloromethane was detected at an estimated concentration above the AL of 0.13 µg/L in the sample collected from well IRPMW45 (0.3 µg/L) during the 2005 event. Dibromochloromethane was not detected above the PQL in the other wells that were sampled during the 2002, 2003, and 2005 events.

Chloroform was detected above the PQL of 2 µg/L in samples collected from wells IRPMW42 (4.6 µg/L), IRPMW43 (3 µg/L), IRPMW44 (4 µg/L), IRPMW46 (3 µg/L), IRPMW47 (3 µg/L), and IRPMW48 (3 µg/L) during the 2005 event. Additionally, chloroform was detected at the PQL (2 µg/L) in the sample collected from IRPMW45. Chloroform was detected at estimated values below the PQL in samples collected from DZB101-13MW8, IRPMW20, IRPMW23, IRPMW31, IRPMW33 and IRPMW50A during the 2005 event. Chloroform was not detected above the PQL during the 2002 or 2003 monitoring events, but was detected at estimated values below the PQL in samples collected from well IRPMW50A during the 2002 and 2003 events. Chloroform has not been detected above the AL of 100 µg/L in samples collected from wells during the 2002, 2003, and 2005 events.

### 8.2.3 Nitrogen Compounds

Total Kjeldahl nitrogen (TKN) was detected above the PQL of 0.2 milligrams per liter (mg/L) in the samples collected from wells IRPMW23 (0.76 mg/L), IRPMW29 (0.59 mg/L), IRPMW37 (1.1 mg/L), IRPMW38 (1.8 mg/L), IRPMW39 (0.97 mg/L), IRPMW42 (0.46 mg/L), IRPMW43 (0.66 mg/L), and IRPMW51 (1.8 mg/L) during the 2005 event. There are no established ALs for TKN.

TKN was consistently detected above the PQL of 0.2 mg/L in the samples collected from wells IRPMW50A and IRPMW56 during the four groundwater monitoring events in 2002 and 2003. In August 2003, TKN concentrations in samples collected from wells IRPMW50A and IRPMW56 were 0.46 mg/L and 0.54 mg/L, respectively. Overall, the TKN concentrations reported for samples collected from well IRPMW50A during the four monitoring events ranged from 0.46 mg/L to 0.79 mg/L. For samples collected from well IRPMW56, TKN concentrations ranged from 0.54 mg/L to 1.3 mg/L. TKN was not detected in samples collected in August 2003 from wells IRPMW37A and IRPMW50B. However, TKN was detected in samples collected from these wells during previous monitoring events in 2002 and 2003. TKN was detected in samples collected from well IRPMW37A in November 2002 (0.58 mg/L) and February 2003 (0.39 mg/L). TKN was detected in samples collected from well IRPMW50B in November 2002, February 2003, and May 2003 and ranged from 0.28 mg/L to 1.7 mg/L. The highest detected concentrations of TKN over the four monitoring events were reported for well IRPMW02 (9.8 mg/L) in the sample collected in November 2002. During the May 2003 event, low concentrations of TKN were detected in samples collected from wells IRPMW09 (0.24 µg/L), IRPMW15 (0.26 µg/L), IRPMW19 (3.7 µg/L), and BLDG70MW01 (0.22 µg/L).

During the 2005 event, Nitrate (reported as nitrogen) was detected above the AL of 10 mg/L in the sample collected from well IRPMW02 (59.7 mg/L), IRPMW15 (13.5 mg/L), IRPMW19 (10.4 mg/L), and IRPMW21 (14.3 mg/L). Nitrate was not detected above the AL in the other samples collected during the 2005 event. Except for samples from wells DZB101-44MW1 and DZB101-44MW2, nitrate was detected above the PQL of 0.16 mg/L, but below the AL in samples collected from the other wells during the 2005 event (see Table 5).

The highest nitrate concentrations detected in the samples collected from the wells monitored during the 2002 and 2003 programs were reported for well IRPMW02 (66.7 mg/L) in May 2003. Nitrate was consistently detected in samples collected from wells IRPMW37A, IRPMW50A, IRPMW50B, and IRPMW56 during the four events in 2002 and 2003. In August 2003, nitrate concentrations in samples collected from these wells were 0.48 mg/L, 2.5 mg/L, 0.45 mg/L, and 2.6 mg/L, respectively. During the four events in 2002 and 2003 for these four monitoring wells, the two highest nitrate concentrations were consistently reported for the samples collected from wells IRPMW50A and IRPMW56. In May 2003, nitrate was detected above the AL of 10 mg/L in the sample collected from well IRPMW15 (11.7 mg/L). During the November 2002 and May 2003 events, concentrations of nitrate were detected below the AL in samples collected from wells IRPMW09, IRPMW17, IRPMW19, IRPMW33, DZB101-44MW3, and BLDG70MW01.

Nitrite (as nitrogen) was not detected above the AL of 1.0 mg/L during the 2005 event. The nitrite PQL was elevated above the AL for one sample, IRPMW02, due to the high concentration of nitrate in the sample. An elevated PQL for non-detected analytes in the same method is common when one analyte is detected at such a high concentration but is not an indication that non-detected analytes are present. No other samples collected during the 2005 event were reported to contain concentrations of nitrite above the PQL or AL. Nitrite was reported above the AL, but below the PQL, in samples collected from well IRPMW02 in November 2002 and May 2003. Nitrite was reported above the PQL in samples collected from well IRPMW50A in November 2002, in February 2003, and May 2003. For the other wells that were sampled in May 2003, nitrite was below the PQL and AL. However, the PQL for some samples was adjusted because of dilutions required for high nitrate concentrations.

#### **8.2.4 Pesticides, Including PCB Compounds**

Groundwater samples were scheduled to be collected from well HWAAP02 and analyzed for 4,4-DDT and compounds containing PCBs, in addition to other analytes, during the 2005 event. However, well

HWAAP02 was dry at 200.49 feet below the top of casing. Therefore, groundwater samples were not collected from this well during the 2005 event.

Groundwater samples collected from wells HWAAP02 and IRPMW02 in May 2003 were analyzed for pesticides and PCBs. Pesticides and PCBs were below the respective PQLs in the groundwater samples collected from both wells. However, the PQLs for the pesticides aldrin (0.048 µg/L), dieldrin (0.096 µg/L), alpha-BHC (0.048 µg/L), beta-BHC (0.048 µg/L), and toxaphene (4.8 µg/L) were above their respective ALs of 0.004 µg/L, 0.0042 µg/L, 0.011 µg/L, 0.037 µg/L, and 3 µg/L. Additionally, the PQLs for the PCBs aroclor-1016 (0.96 µg/L), aroclor-1221 (1.9 µg/L), aroclor-1232 (0.96 µg/L), aroclor-1242 (0.96 µg/L), aroclor-1248 (0.96 µg/L), aroclor-1254 (0.96 µg/L), and aroclor-1260 (0.96 µg/L) were above the AL of 0.5 µg/L for these PCBs. During future monitoring events, samples collected from well IRPMW02 will not be analyzed for pesticides and PCBs.

### 8.3 FIELD MEASUREMENT DATA

At each well that was sampled during the 2005 monitoring program, field personnel measured groundwater temperature, pH, specific conductance, dissolved oxygen, and turbidity a minimum of three times prior to sample collection. Table 5 summarizes the water quality field parameter results associated with the final set of measurements collected at each well with detected constituents. Appendix C provides the results of these field parameter measurements that were collected at each monitoring well. During the 2005 event, pH ranged from 7.04 (IRPMW19) to 9.93 (USGS103-41MW25). Temperature ranged from 11.9 (IRPMW52) to 28.4 degrees Celsius (IRPMW13). Specific conductance ranged from 724 (IRPMW23) to 5,290 micromhos per centimeter (IRPMW02). Turbidity ranged from <2 (lower concentration limit of turbidity meter) to 213 (IRPMW50B) nephelometric turbidity units. Dissolved oxygen ranged from 0.0 to 9.43 mg/L (DZB101-44MW3).

### 8.4 SUMMARY OF SAMPLING COMPLETENESS

Completeness is a measurement of the quantity of valid results. For the data to be considered complete they must meet all acceptance criteria including accuracy and precision and other criteria specified for an analytical method. The validity of sample results is determined through the data validation process. All rejected sample results are considered to be incomplete. Data that are qualified as undetected (U), undetected at estimated reporting limits (UJ), and estimated (J) are considered to be valid and usable. The

number of valid results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set.

The field completeness objective for this project was to sample 81 wells, and only 70 of the 81 targeted wells were sampled. The following eleven wells were either unrecoverable or abandoned and therefore could not be sampled:

- DZB101-15MW6/7
- HWAAP02
- IRPMW03
- USGS103-41MW01
- USGS103-41MW04
- USGS103-41MW07
- USGS103-41MW12
- USGS103-41MW14
- USGS103-41MW18
- USGS103-41MW20
- USGS103-41MW21

Laboratory data completeness is a measure of the amount of valid data obtained from all laboratory measurements. A total of 7985 analytical results were reported by the laboratory and some of the results were qualified but none of the results were rejected. The laboratory data completeness objective was 90 percent, and a completeness rate of 100 percent was achieved, with all of the data being usable.

## 9.0 CONCLUSIONS

The last monitoring event before 2005 was in August 2003. Four wells were sampled during the August 2003 event (IRMPW37A, IRPMW50A, IRPMW50B, and IRPMW56). Since the August 2003 event, water levels in these four wells have dropped by an average of 0.20 foot, ranging from a decrease of 0.04 feet in IRPMW50B to a decrease of 0.3 feet in IRPMW56.

During the 2005 event, the explosive RDX was detected above the AL in samples collected from wells IRPMW37A, IRPMW56, and DZB101-44MW3. RDX was detected above the AL in well IRPMW56 in each of the five times it has been sampled. RDX was detected above the AL in well DZB101-44MW2 (May 2003), IRPMW02 (February 2002), and IRPMW35 (May 2003). With the exception of these three wells, RDX has not been detected above the PQL in samples collected from the other wells that were sampled in 2002, 2003, and 2005.

The explosive TNT and two of its daughter products, 2-amino-4,6-DNT, and 4-amino-2,6-DNT, were detected above their respective ALs in the sample collected from well IRPMW02 during the 2005 event. Since January 1997, TNT and these two daughter products have consistently been detected above their ALs in samples collected from well IRPMW02. No significant upward or downward trend in the concentrations of these constituents has been observed. TNT and its three daughter products, including 2,4-DNT, were not detected above their respective ALs in samples collected from the other wells that were sampled during the 2002, 2003, and 2005 events.

Picric acid was not detected above the MDL or AL of 1.0 µg/L in samples collected from the wells that were sampled during the events conducted in 2002, 2003, and 2005.

TCE was detected above the AL in the samples collected from wells IRPMW37, IRPMW50, IRPMW50A, and IRPMW50B during the 2005 event. During the 22 events, including December 2005, conducted since January 1997, TCE has consistently been detected above the AL in the samples collected from wells IRPMW37 and IRPMW50. TCE was reported above the PQL in samples collected from well IRPMW16 since 1997. In addition, TCE was consistently detected above the PQL, but below the AL, in samples collected from well IRPMW56 since 2002.

1,2-DCA was detected at the PQL, but below the AL, in the sample collected from well IRPMW50A during the 2005 event. During the five monitoring events conducted since November 2002, 1,2-DCA has been detected above the PQL, but below the AL in the samples collected from this well. 1,2-DCA was not detected above the PQL in samples collected from the other wells that were sampled during the 2002, 2003, and 2005 monitoring events.

PCE was not detected above the PQL or AL in the wells that were sampled during the 2002, 2003, and 2005 events. PCE was detected at the PQL, but below the AL, in the sample collected from well

IRPMW16 in December 2005. Since 2002, the highest concentration of PCE was detected in the sample collected from well IRPMW16 in May 2003.

Bromodichloromethane was detected at estimated concentrations above the AL in samples collected from wells IRPMW42, IRPMW44, IRPMW47, and IRPMW48 during the 2005 event. Bromodichloromethane was detected at an estimated concentration above the AL in the sample collected from well IRPMW45 during the May 2003 event. Bromodichloromethane was not been detected in the other wells that were sampled during the 2002 and 2003 sampling events. The PQL for bromodichloromethane was above the AL.

Chloroform was detected above the PQL, but below the AL, in the samples collected from wells IRPMW42, IRPMW43, IRPMW44, IRPMW46, IRPMW47, and IRPMW48 during the 2005 event. Chloroform was detected at the PQL in the sample collected from IRPMW45. Chloroform was detected at estimated values below the PQL in samples collected from DZB101-13MW8, IRPMW20, IRPMW23, IRPMW31, IRPMW33 and IRPMW50A during the 2005 event. Chloroform was not detected above the PQL during the 2002 or 2003 events. Chloroform was not detected above the AL in the samples collected from the wells that were sampled during the 2002, 2003, and 2005 events.

Dibromochloromethane was detected at an estimated concentration above the AL in the sample collected from well IRPMW45 during the 2005 event. Dibromochloromethane was not detected in the other wells that were sampled during the 2005 event.

TKN was detected above the PQL in the samples collected from wells IRPMW23, IRPMW29, IRPMW37, IRPMW38, IRPMW39, IRPMW42, IRPMW43, and IRPMW51 during the 2005 event. TKN was consistently detected above the PQL in the samples collected from wells IRPMW50A and IRPMW56 during the four monitoring events conducted in 2002 and 2003. TKN was not detected in the samples collected in August 2003 from wells IRPMW37A and IRPMW50B. However, TKN was detected in the samples collected from these wells during previous events in 2002 and 2003. The highest detected concentrations of TKN over the four monitoring events were reported for samples collected from well IRPMW02 (9.8 mg/L) in November 2002. During the May 2003 event, low concentrations of TKN were detected in the samples collected from wells IRPMW09, IRPMW15, IRPMW19, and BLDG70MW01. There are no established ALs for TKN.

During the 2005 event, nitrate was detected above the AL in the samples collected from wells IRPMW02, IRPMW15, IRPMW19, and IRPMW21. Nitrate was not detected above the AL in the other samples that were collected during the 2005 event. Except for wells DZB101-44MW1 and DZB101-44MW2, nitrate was detected above the PQL, but below the AL, in the samples collected from the wells during the 2005 event. The highest nitrate concentration that was detected during the events in 2002 and 2003 was reported in the sample from monitoring well IRPMW02, in May 2003. Nitrate was consistently detected in samples collected from wells IRPMW37A, IRPMW50A, IRPMW50B, and IRPMW56 during the four monitoring events in 2002 and 2003. During these events, samples collected from the four monitoring wells indicated that the two highest nitrate concentrations were consistently reported for the samples collected from wells IRPMW50A and IRPMW56. In May 2003, nitrate was detected above the AL in the sample collected from well IRPMW15. During the November 2002 and May 2003 events, concentrations of nitrate were detected below the AL in samples collected from wells IRPMW09, IRPMW17, IRPMW19, IRPMW33, DZB101-44MW3, and BLDG70MW01.

Nitrite was detected above the AL, but not detected above the PQL in the sample collected from well IRPMW02 during the 2002, 2003, and 2005 events. No other samples collected during the 2005 event were reported to contain concentrations of nitrite above the PQL or AL. Nitrite was reported above the PQL in the samples collected from well IRPMW50A in November 2002, in February 2003, and May 2003. Nitrite was reported below the PQL and AL in the samples collected from the other monitoring wells that were sampled in May 2003. However, the PQL for some of the samples was adjusted due to dilutions that were required for high nitrate concentrations.

Groundwater samples were scheduled to be collected from well HWAAP02 during the 2005 monitoring event and analyzed for 4,4-DDT and PCBs. However, well HWAAP02 was dry. Groundwater samples that were collected from wells HWAAP02 and IRPMW02 in May 2003 were analyzed for pesticides and PCBs. Concentrations of pesticides and PCBs were reported to be below the respective PQLs in the samples collected from both these wells. However, the PQLs for aldrin, dieldrin, alpha-BHC, beta-BHC, toxaphene, and PCBs were above their respective ALs. During future monitoring events, pesticides and PCB compounds will not be analyzed in samples collected from well IRPMW02.

## 10.0 RECOMMENDATIONS

Based on the data evaluated from the November/December 2005 groundwater monitoring event, the following recommendations are offered:

- Groundwater monitoring at HWAD should continue per the HWAD Basewide Groundwater Monitoring Program Criteria due to constituent concentrations having been detected above their respective ALs.
- The sampling team should review sample related issues from the previous year's sampling event and take precautions necessary to achieve sample results for each monitoring well location.
- The project laboratory should ensure that reporting levels (PQLs) are each below the respective state-approved ALs for HWAD.
- Remind the project laboratory, prior to sample submission, that multi-analyte methods may require two sets of results. If a sample must be diluted to quantify a constituent at a high concentration, an additional analysis of the undiluted sample or a dilution 10 times more concentrated than the reported dilution is also required.
- Collect one extra liter of sample in a glass bottle (a total of three one-liter glass containers) at each monitoring well location that requires both explosives and picric acid by EPA Method 8330. The extra sample volume will assure the project laboratory has adequate sample volume for any analysis that does not require preservative if there is an accident, such as a broken container.
- Pesticide sampling at well HWAAP02 should continue due to concerns regarding pesticide disposal at the Old Bomb Area. Alternatively, if well HWAAP02 is dry, then pesticide sampling should be conducted at well HWAAP09.
- Table 7 presents a summary of the recommended wells to be sampled in 2006. Based on Table 7, it is suggested that the following wells be sampled for the following constituents during the 2006 sampling event:
  - **Ammonium as N:** HWAAP02, IRPMW01, IRPMW02, IRPMW03, IRPMW04, IRPMW09, IRPMW14, IRPMW15, IRPMW16, IRPMW17, IRPMW18, IRPMW19, IRPMW20, IRPMW21, IRPMW24, IRPMW25, IRPMW28, IRPMW29, IRPMW31, IRPMW34, IRPMW35, IRPMW42, IRPMW43, IRPMW44, IRPMW45, IRPMW46, IRPMW47.
  - **Explosives:** HWAAP02, IRPMW01, IRPMW02, IRPMW03, IRPMW04, IRPMW08A, IRPMW24, IRPMW25, IRPMW28, IRPMW29, IRPMW35.
  - **Nitrate/Nitrite/TKN:** HWAAP02, IRPMW01, IRPMW02, IRPMW03, IRPMW04, IRPMW09, IRPMW14, IRPMW15, IRPMW16, IRPMW17, IRPMW18, IRPMW19, IRPMW20, IRPMW21, IRPMW24, IRPMW25, IRPMW28, IRPMW29, IRPMW31,

IRPMW34, IRPMW35, IRPMW42, IRPMW43, IRPMW44, IRPMW45, IRPMW46, IRPMW47.

- **Picric Acid:** HWAAP02, IRPMW01, IRPMW02, IRPMW03, IRPMW04, IRPMW08A, IRPMW24, IRPMW25, IRPMW28, IRPMW29, IRPMW35.
- **VOCs:** HWAAP02, IRPMW01, IRPMW02, IRPMW03, IRPMW04, IRPMW14, IRPMW15, IRPMW20, IRPMW21, IRPMW24, IRPMW25, IRPMW28, IRPMW29, IRPMW37, IRPMW50, IRPMW50A, IRPMW50B.
- Nitrate, ammonium, and TKN were detected in several equipment rinsates collected in December 2005. Take precautions to avoid contamination of equipment rinsates and potential cross-contamination of samples including:
  - 1) submit a source blank for nitrate as N, ammonium as N, and TKN analyses;
  - 2) perform equipment decontamination procedures thoroughly, especially the final rinse; and
  - 3) collect aliquots for nitrogen parameters before opening containers containing nitric acid preservative.
- To be consistent and avoid confusion, identify field duplicates by adding a "D" to the end of the duplicate sample identification. The practice of adding an "A" and "B" to the sample identifications of the field duplicate pair can be confusing because some of the monitoring well locations are labeled as "A" and "B."
- The following changes to the Basewide Groundwater Monitoring Program Criteria Data, Table 3, were made based on the September 7, 2006 NDEP comments received by Tetra Tech:
  - IRPMW06, slated for sampling suspension for explosives as listed in Table 3, be sampled every four years for explosives (Comment #9)
  - On Table 3, HWAAP17 should be sampled every two years for VOCs (Comment #14)
  - Wells IRPMW40 and IRPMW41 should be sampled every four years for nitrogen and VOCs instead of every two years (Comment #14)
- The following changes to the 2006 sampling schedule were implemented into Table 7 based on the September 7, 2006 NDEP comments received by Tetra Tech:
  - Explosives, picric acid, and VOCs were added to IRPMW01 (Comments #7, #20)
  - VOCs were added to IRPMW02 (Comments #7, #20)
  - Ammonium as N, explosives, nitrate/nitrite, picric acid and TKN were added to IRPMW04 (Comments #7, #20)

- IRPMW08 was changed to IRPMW08A (Comment #7)
- Explosives, picric acid were added to IRPMW08A (Comments #7, #20)
- VOCs were added to IRPMW24 (Comments #7, #20)
- IRPMW32 should not be sampled in 2006 (Comments #7, #20)
- VOCs were added to IRPMW50A and IRPMW50B (Comments #7, #20)
- To include wells DZB 101-44MW1, DZB101-44MW2, DZB101-44MW3, and IRPMW56 as being monitored quarterly for explosives and nitrates (Comment #12)
- Wells IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G, be sampled for one year on a quarterly basis for explosives, nitrates, and VOCs (Comment #13)
- The following recommendations were incorporated into the 2006 sampling plan as requested:
  - Email dated November 8, 2006 to USACE to update Table 7 showing EPA 8011 added to select wells and the addition of wells IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G.
  - Email dated November 30, 2006 from USACE indicating Tetra Tech does not have to sample IRPMW01, IRPMW02, IRPMW03, IRPMW08A, IRPMW28, IRPMW29, IRPMW31, IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G (these wells would be sampled by Plexus), allowing Tetra Tech to perform the EPA 8011 analyses.
  - Email dated November 30, 2006 from Tetra Tech to USACE confirming the removal of wells IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G from the sampling schedule.
  - Email dated December 1, 2006: email from Tetra Tech to USACE with a revised Table 7 incorporating all USACE indicated changes; wells IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G were not removed from the schedule until further notification from USACE. IRPMW02 and IRPMW31 were not removed from the schedule because they were contractually assigned to Tetra Tech and required by NDEP to be sampled.
  - Email dated December 1, 2006 from USACE with the following changes to Table 7: Explosives, nitrate/nitrite, and VOCs were added to DZB101-44MW1, DZB101-44MW2, DZB101-44MW3, and IRPMW56; EPA 8081A was added to HWAAP02; explosives and nitrate/nitrite were added to IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G.

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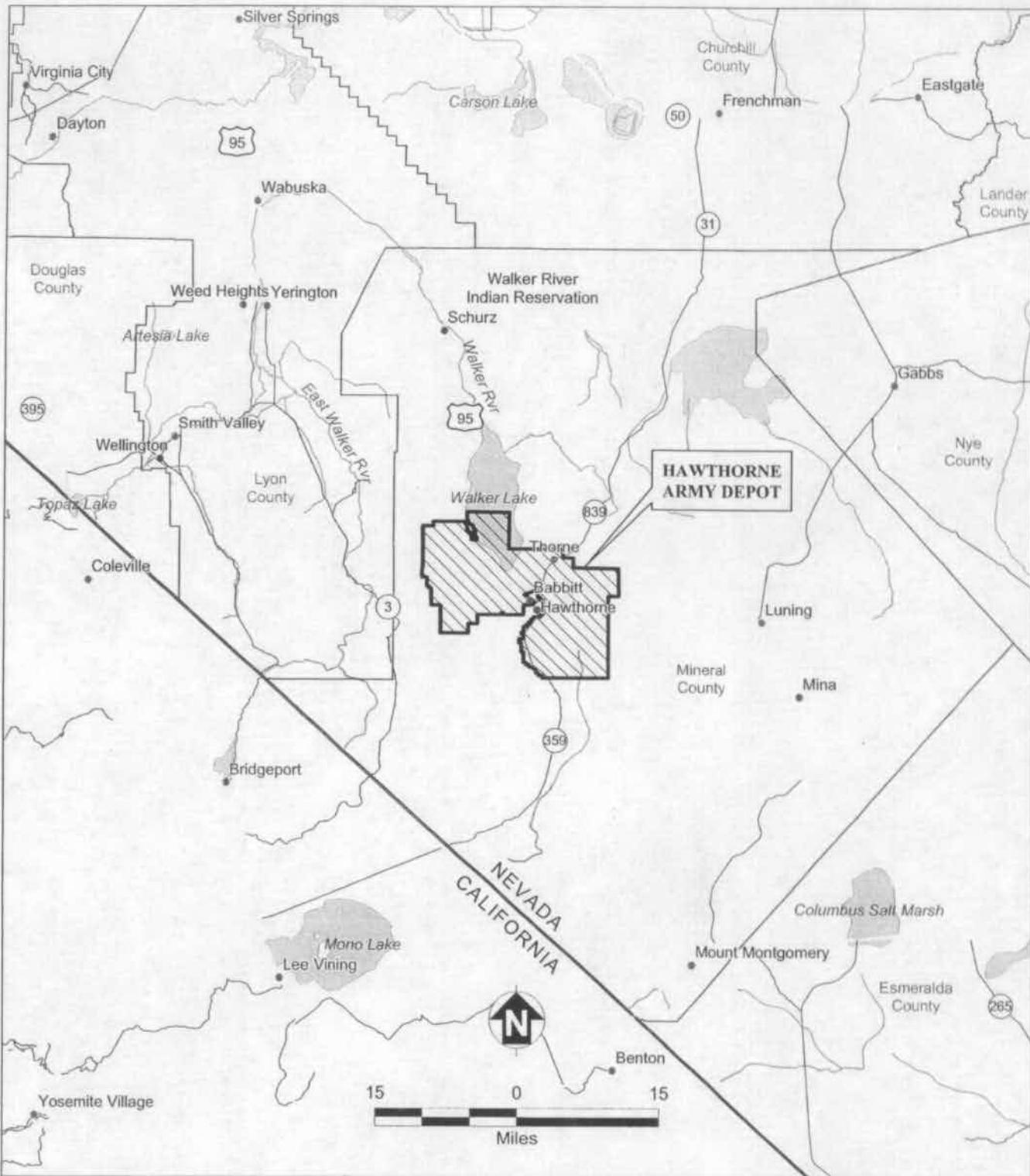
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## REFERENCES (Continued)

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**FIGURE 1**

REGIONAL LOCATION MAP  
HAWTHORNE ARMY DEPOT  
HAWTHORNE, NEVADA

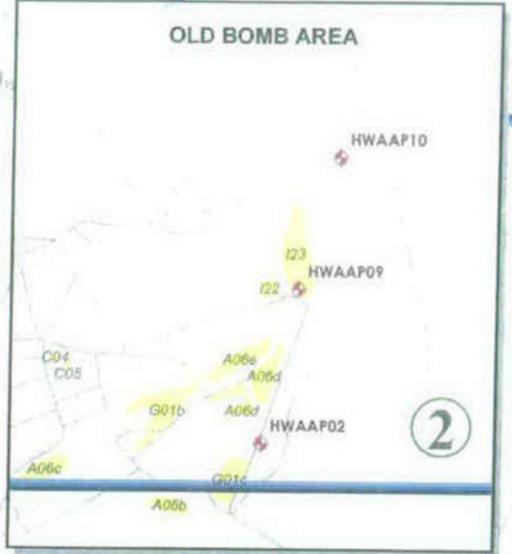
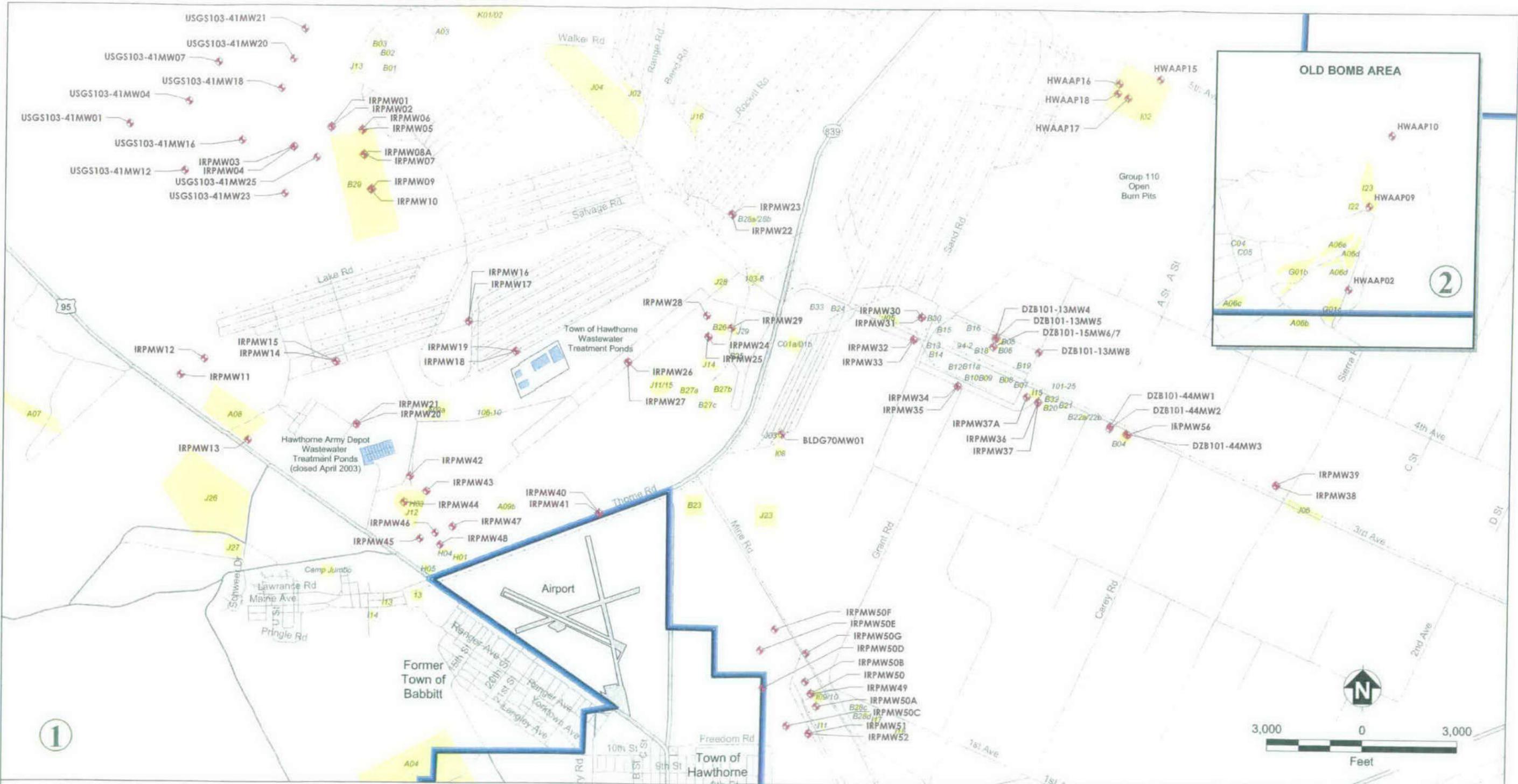


Based on ESRI Data & Maps Media Kit

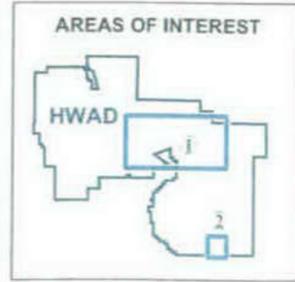


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2006-10-23 V:\Misc\_GIS\HWAD\Inventory\_Results.mxd TEMI-SF Aleksandr Zhuk



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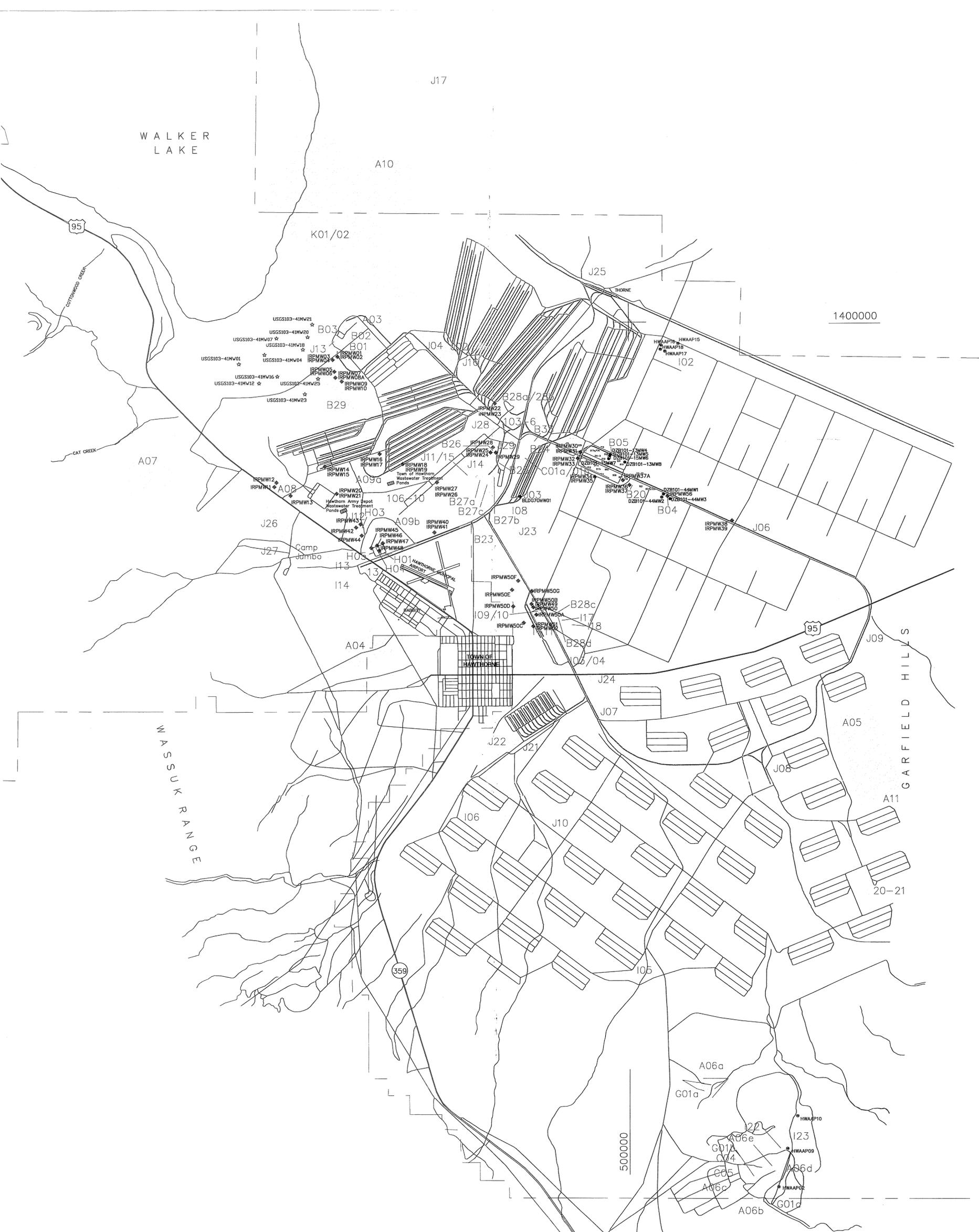


- LEGEND:**
- Groundwater Monitoring Well
  - Hawthorne Army Depot Boundary
  - Solid Waste Management Unit

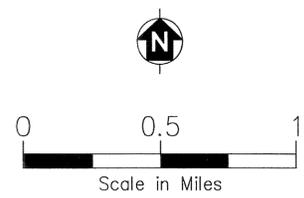
**FIGURE 2**

WELL LOCATION MAP  
HAWTHORNE ARMY DEPOT  
HAWTHORNE, NEVADA





- LEGEND**
- ◆ IRP and Building 70 Monitoring Well
  - ☆ US Geological Survey Monitoring Well
  - ⊙ HWAD Production Well
  - ⊙ HWAD Previous Investigation Well
  - DZB Monitoring Well
  - ══ Highway
  - ~ Unimproved Road
  - - - Depot Boundary
  - Railroads
  - Solid Waste Management Units (SWMU)

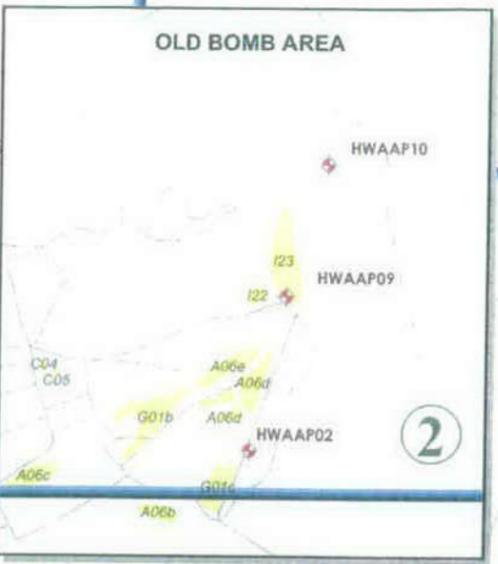
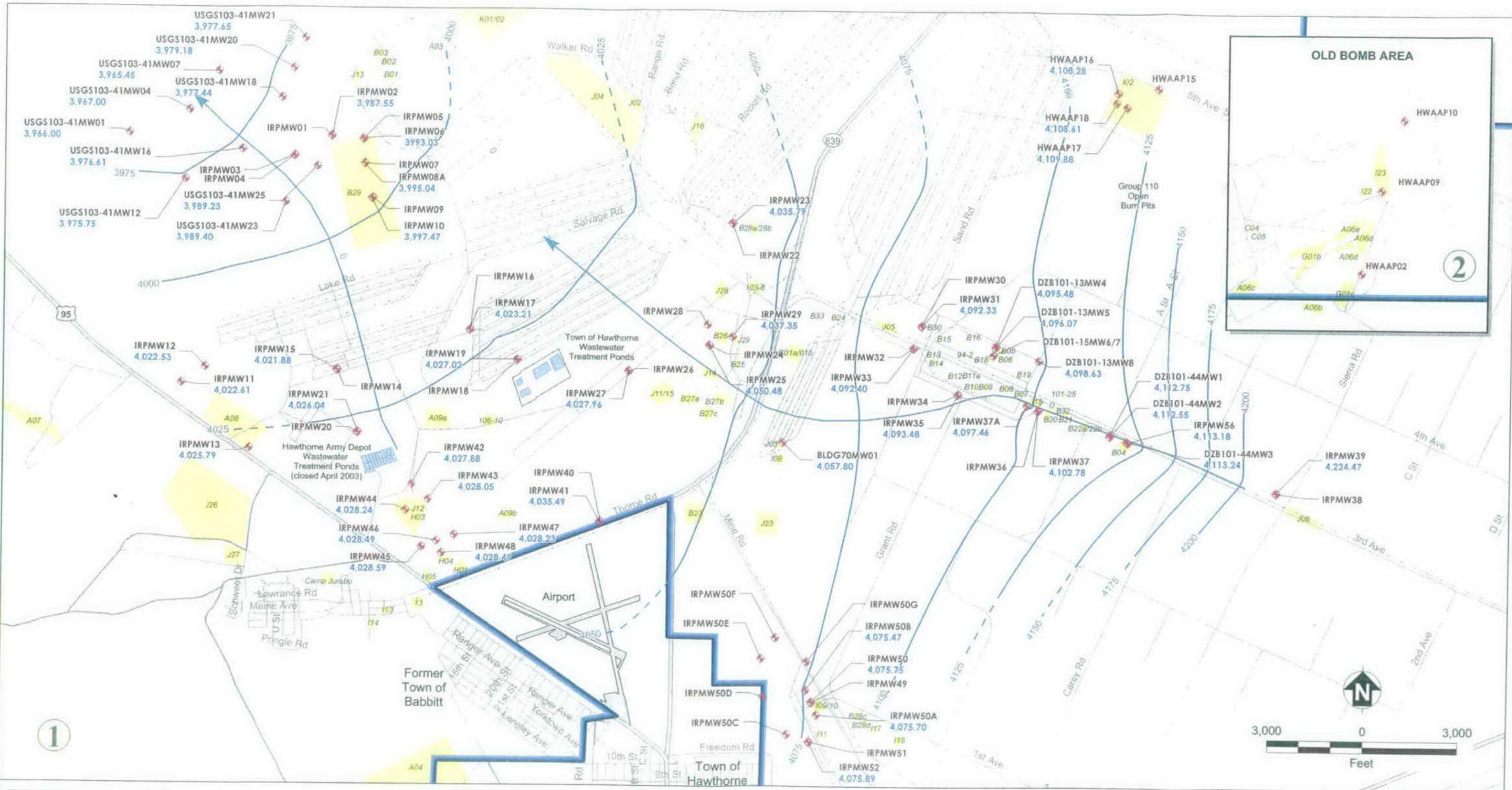


**FIGURE 3**  
**EXISTING WELL AND SOLID WASTE MANAGEMENT UNIT LOCATIONS**  
**HAWTHORNE ARMY DEPOT,**  
**HAWTHORNE, NEVADA**

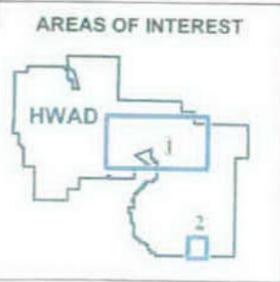


Source: Tetra Tech, Inc.

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1



**LEGEND:**

- IRPMW12 4,022.53 Groundwater Monitoring Well
- Groundwater Elevation (Feet Above Mean Sea Level)
- Groundwater Elevation Contours (Dashed Where Inferred)
- Interval = 25 feet (Developed Using Natural Neighbor Method)
- Groundwater Flow Direction

- Major Road
- Local Road
- Hawthorne Army Depot Boundary
- Solid Waste Management Unit

**Notes:**

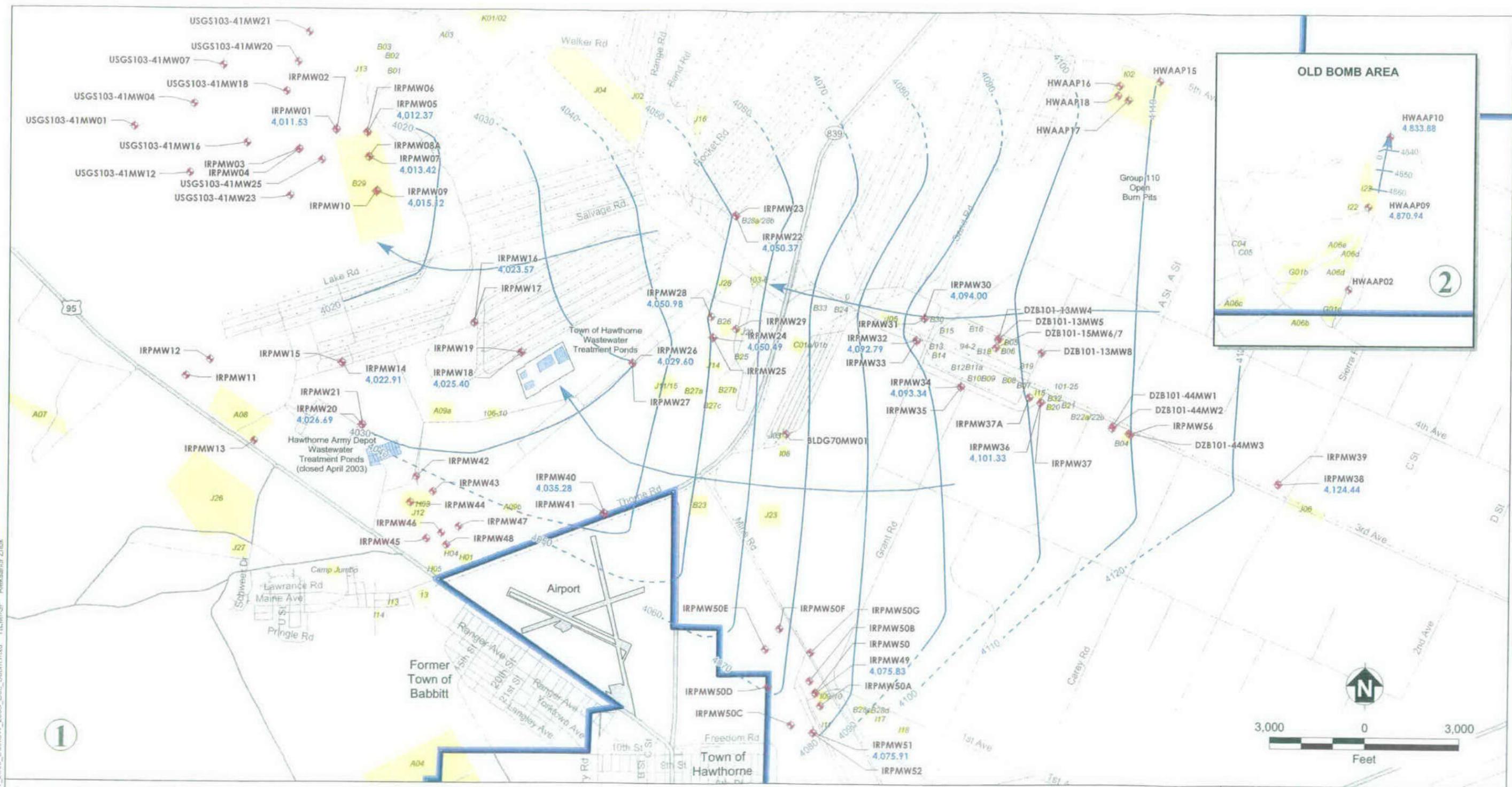
1. Wells on this map with groundwater elevations next to them were used for contouring and are designated as water table wells (WT), which are designated to monitor the first-encountered unconfined aquifer.
2. Static groundwater levels recorded November 29 through December 2, 2005.
3. Well DZB101-15MW6/7 has a packer in it and was not used for contouring.
4. Well IRPMW04 has roots at the water level. The water level was estimated and not used for contouring.



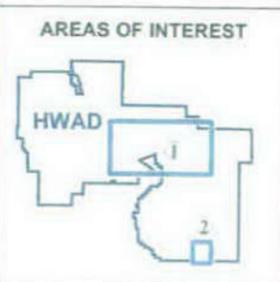
**FIGURE 4A**  
**GROUNDWATER ELEVATION CONTOURS**  
**(DECEMBER 2005)**  
**WATER TABLE WELLS**  
**HAWTHORNE ARMY DEPOT**  
**HAWTHORNE, NEVADA**



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1



**LEGEND:**

- IRPMW01 4,011.53 Groundwater Monitoring Well
- Groundwater Elevation (Feet Above Mean Sea Level)
- Groundwater Elevation Contours (Dashed Where Inferred) Interval = 10 feet (Developed Using Natural Neighbor Method)
- Groundwater Flow Direction
- Major Road
- Local Road
- Hawthorne Army Depot Boundary
- Solid Waste Management Unit

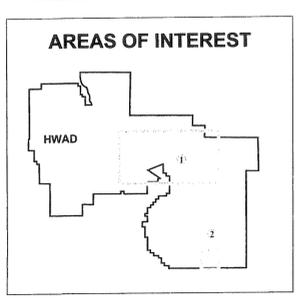
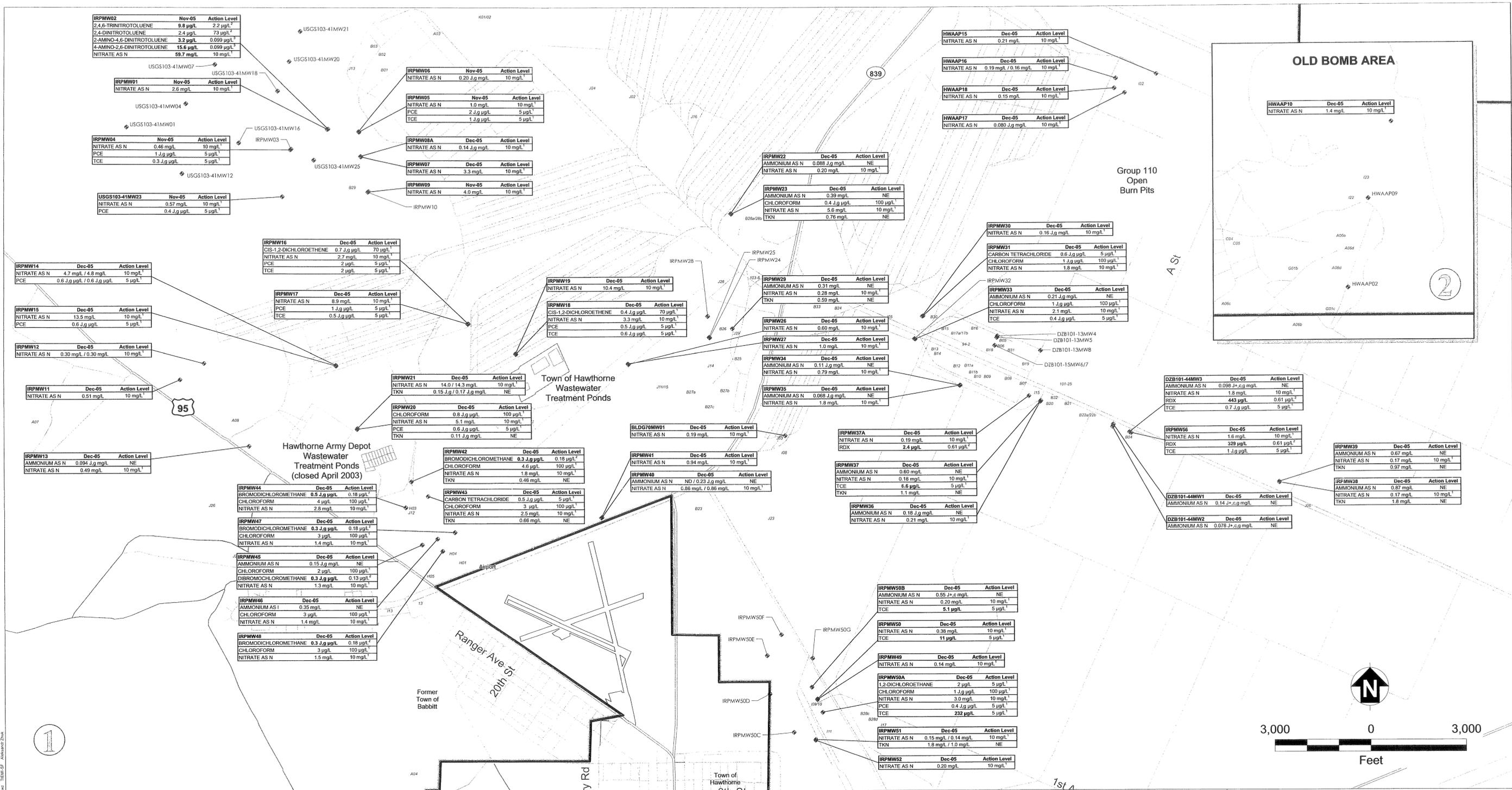
**Notes:**

1. Wells on this map with groundwater elevations next to them were used for contouring and are designated as submerged wells (SW), which are designated to monitor the deeper portion of the same aquifer at approximately 30 to 50 feet below the screen of the shallow wells.
2. Static groundwater levels recorded November 29 through December 2, 2005.
3. Well IRPMW03 is an artesian well and was not used for contouring.
4. Well HWAAP02 was dry and was not used for contouring.



**FIGURE 4B**  
**GROUNDWATER ELEVATION CONTOURS (DECEMBER 2005)**  
**SUBMERGED WELLS**  
**HAWTHORNE ARMY DEPOT**  
**HAWTHORNE, NEVADA**



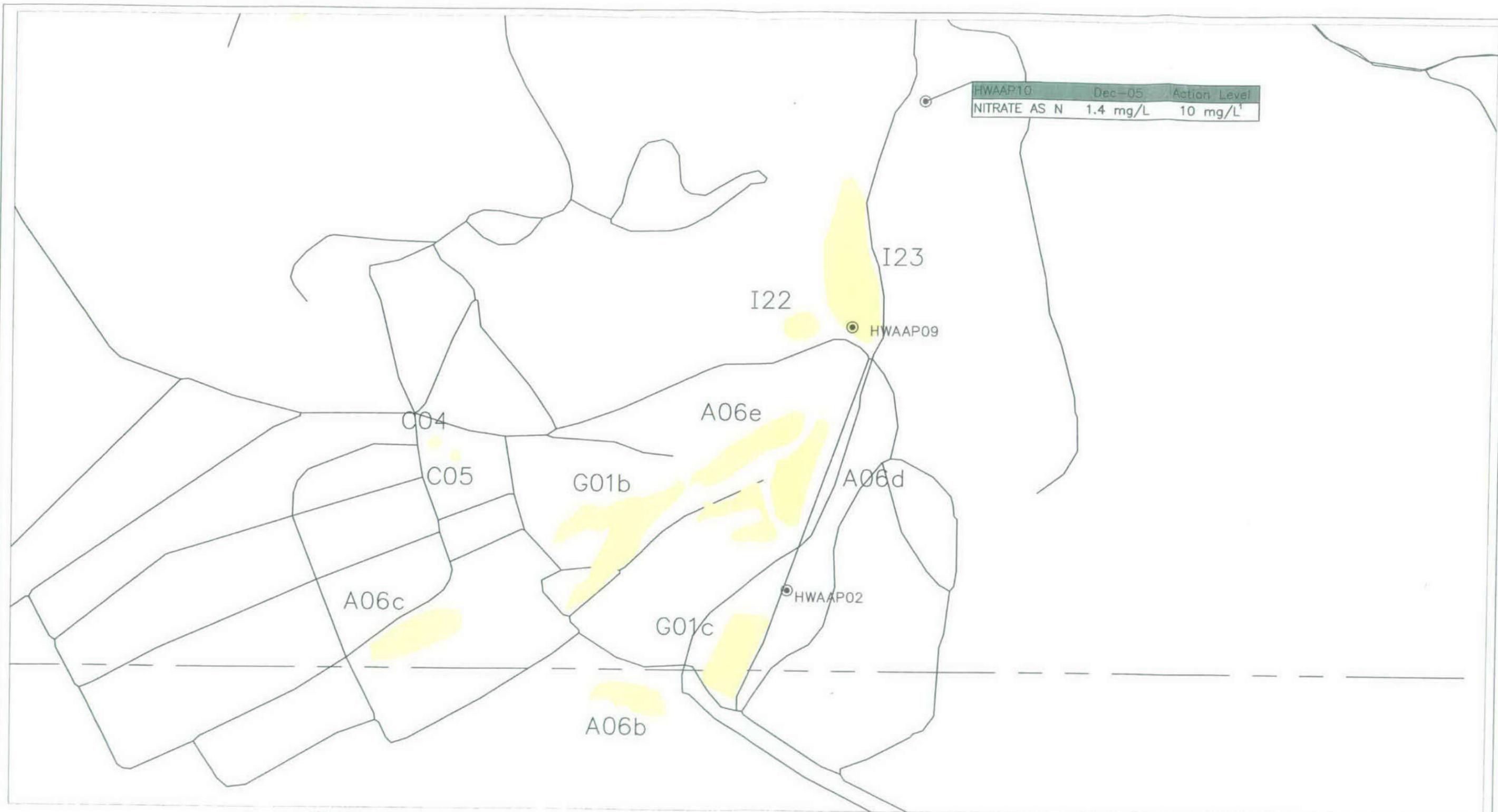


- ◆ Groundwater Monitoring Wells with Detections
- Groundwater Monitoring Wells with No Detections
- ▭ Hawthorne Army Depot Boundary
- ▭ Solid Waste Management Unit
- Highway
- - - Unimproved Road
- Railroad

Notes:  
 Bold values exceed the action level.  
 0.19 / 0.16 Duplicate sample  
 2 MCL, EPA primary maximum contaminant level for drinking water  
 3 PRG for Dinitrotolene mixture  
 c Calibration exceedance  
 EPA Environmental Protection Agency  
 g Quantification below reporting limit  
 J Estimated concentrations  
 J+ Estimated concentration with high bias  
 µg/L Microgram per liter  
 mg/L Maximum contaminant level  
 N Nitrogen  
 ND Not detected  
 NE Not established  
 PCE Tetrachloroethene  
 PRG Preliminary Remediation Goal  
 RDX Cycloheximethylphenyltriamine  
 TCE Trichloroethene  
 TKN Total Kjeldahl Nitrogen

**FIGURE 5**  
 CONCENTRATIONS OF CONTAMINANTS OF CONCERN DETECTED IN GROUNDWATER (NOVEMBER/DECEMBER 2005) HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

**Tt** TETRA TECH EM INC.



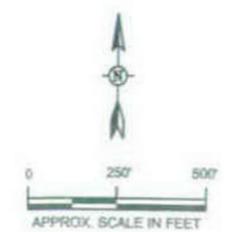
**LEGEND:**

- HWAD PREVIOUS INVESTIGATION WELL
- SOLID WASTE MANAGEMENT UNIT

**Notes:**

- Bold values exceed the action level.
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- µg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen



**FIGURE 6**

OLD BOMB AREA



HWAAP16 Dec-05 Action Level  
 NITRATE AS N 0.19/0.16 mg/L 10 mg/L<sup>1</sup>

HWAAP15 Dec-05 Action Level  
 NITRATE AS N 0.21 mg/L 10 mg/L<sup>1</sup>

HWAAP18 Dec-05 Action Level  
 NITRATE AS N 0.15 mg/L 10 mg/L<sup>1</sup>

HWAAP17 Dec-05 Action Level  
 NITRATE AS N 0.080J,g mg/L 10 mg/L<sup>1</sup>

I02

A06d

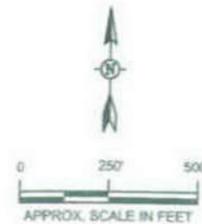
**LEGEND:**

- HWAD PREVIOUS INVESTIGATION WELL
- SOLID WASTE MANAGEMENT UNIT

**Notes:**

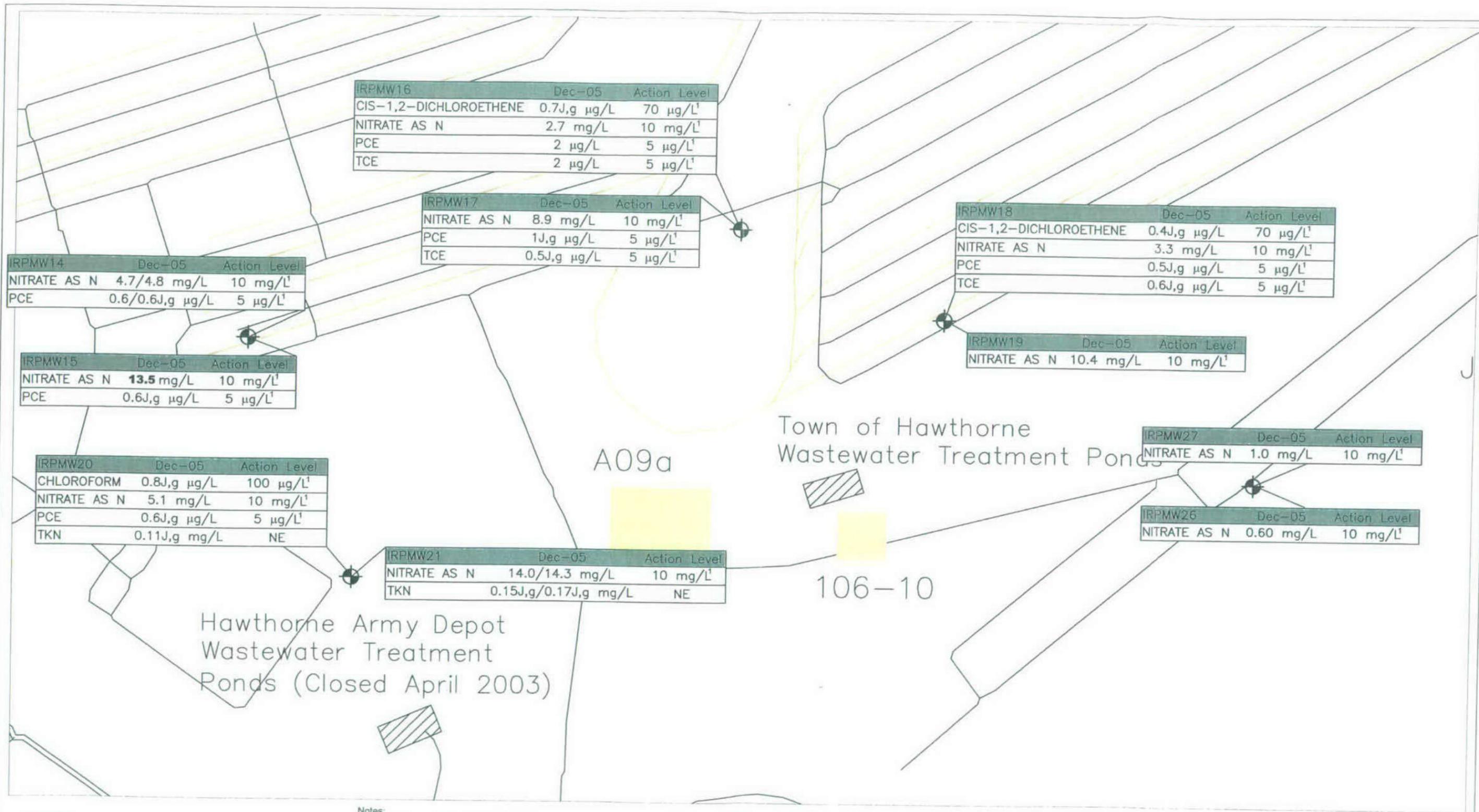
- Bold values exceed the action level.
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- µg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen



**FIGURE 7**

SOLID WASTE MANAGEMENT UNIT  
 I02



**LEGEND:**

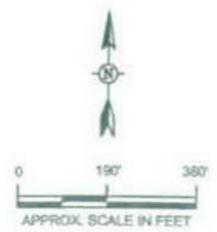
IRP AND BUILDING 70 MONITORING WELL

SOLID WASTE MANAGEMENT UNIT

**Notes:**  
 Bold values exceed the action level.

0.19 / 0.16 Duplicate sample  
 1 MCL, EPA primary maximum contaminant level for drinking water  
 2 PRG, EPA Region IX preliminary remediation goal for tap water  
 3 PRG for Dinitrotoluene mixture  
 c Calibration exceedance  
 EPA Environmental Protection Agency  
 g Quantification below reporting limit  
 J Estimated concentrations  
 J+ Estimated concentrations with high bias

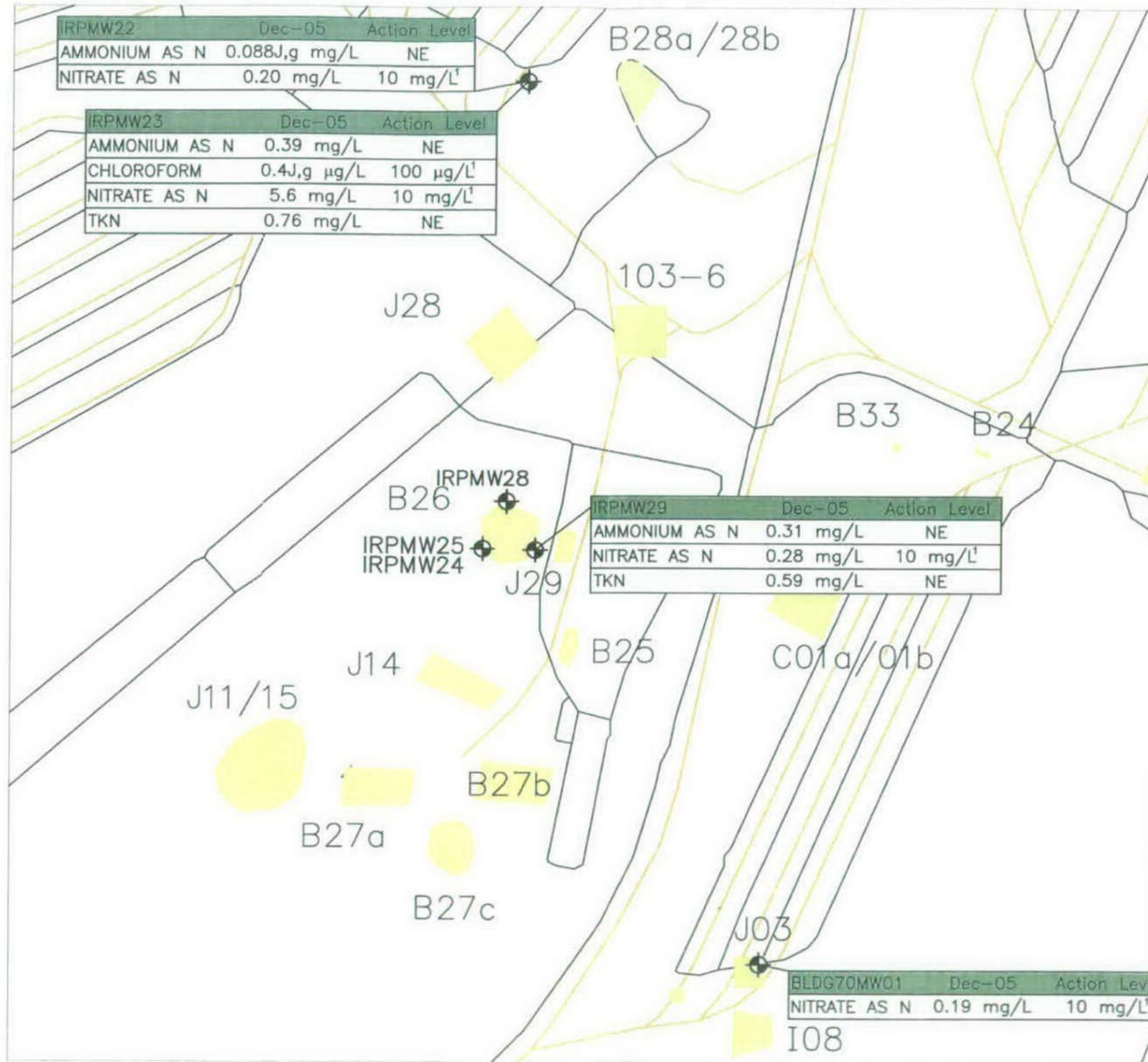
MCL Maximum contaminant level  
 μg/L Microgram per liter  
 mg/L Milligram per liter  
 N Nitrogen  
 ND Not detected  
 NE Not established  
 PCE Tetrachloroethene  
 PRG Preliminary Remediation Goal  
 RDX Cyclotrimethylenetrinitramine  
 TCE Trichloroethene  
 TKN Total Kjeldahl nitrogen



**FIGURE 8**

**WASTEWATER TREATMENT PLANT**

Tetra Tech EM Inc



Notes:

Bold values exceed the action level.

LEGEND:

- IRP AND BUILDING 70 MONITORING WELL
- SOLID WASTE MANAGEMENT UNIT

- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- µg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen

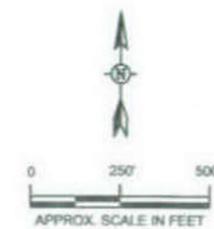
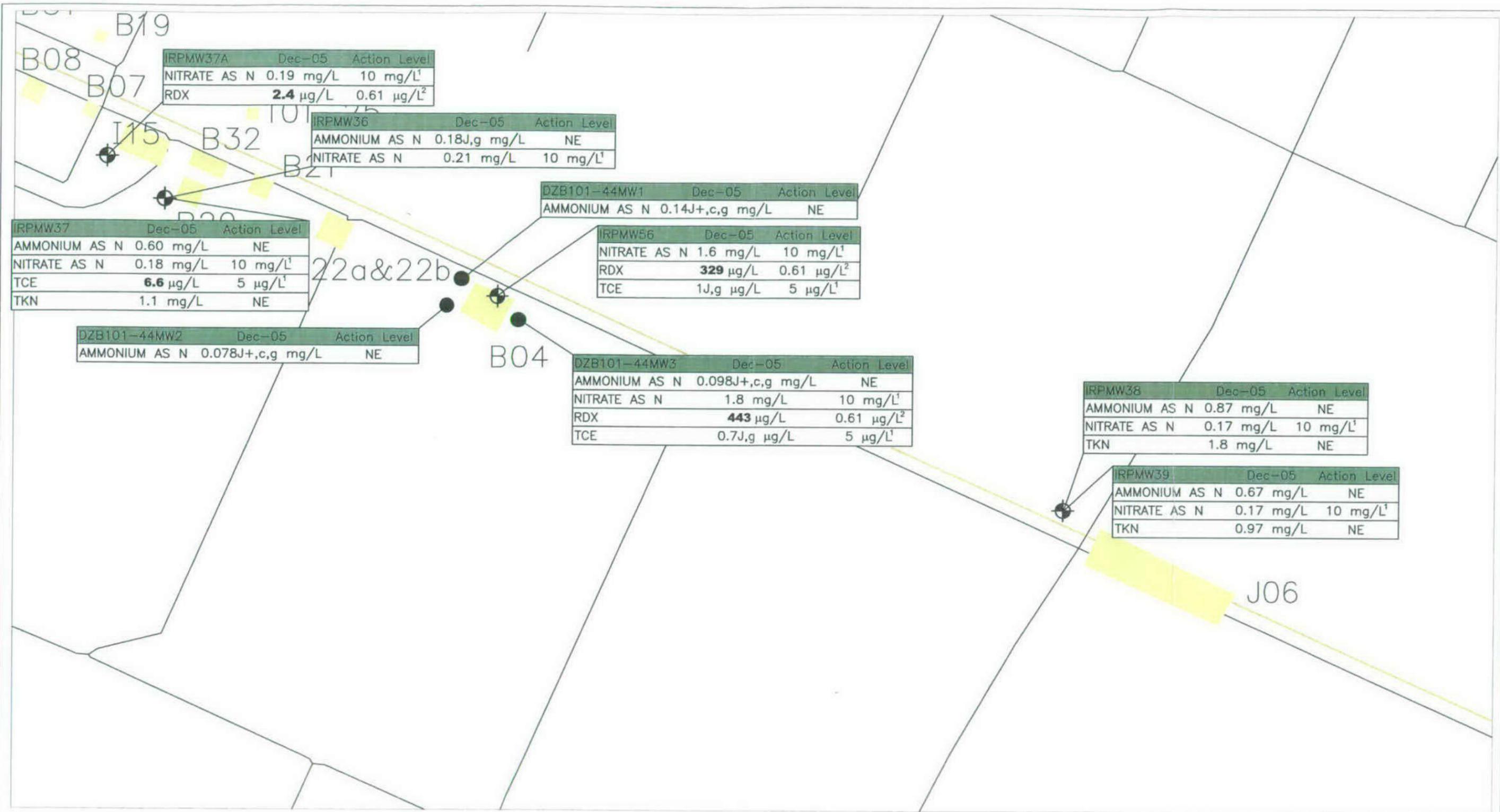


FIGURE 9

AREA 103



IRPMW37A	Dec-05	Action Level
NITRATE AS N	0.19 mg/L	10 mg/L <sup>1</sup>
RDX	<b>2.4</b> µg/L	0.61 µg/L <sup>2</sup>

IRPMW36	Dec-05	Action Level
AMMONIUM AS N	0.18J,g mg/L	NE
NITRATE AS N	0.21 mg/L	10 mg/L <sup>1</sup>

DZB101-44MW1	Dec-05	Action Level
AMMONIUM AS N	0.14J+,c,g mg/L	NE

IRPMW56	Dec-05	Action Level
NITRATE AS N	1.6 mg/L	10 mg/L <sup>1</sup>
RDX	<b>329</b> µg/L	0.61 µg/L <sup>2</sup>
TCE	1J,g µg/L	5 µg/L <sup>1</sup>

IRPMW37	Dec-05	Action Level
AMMONIUM AS N	0.60 mg/L	NE
NITRATE AS N	0.18 mg/L	10 mg/L <sup>1</sup>
TCE	<b>6.6</b> µg/L	5 µg/L <sup>1</sup>
TKN	1.1 mg/L	NE

DZB101-44MW2	Dec-05	Action Level
AMMONIUM AS N	0.078J+,c,g mg/L	NE

DZB101-44MW3	Dec-05	Action Level
AMMONIUM AS N	0.098J+,c,g mg/L	NE
NITRATE AS N	1.8 mg/L	10 mg/L <sup>1</sup>
RDX	<b>443</b> µg/L	0.61 µg/L <sup>2</sup>
TCE	0.7J,g µg/L	5 µg/L <sup>1</sup>

IRPMW38	Dec-05	Action Level
AMMONIUM AS N	0.87 mg/L	NE
NITRATE AS N	0.17 mg/L	10 mg/L <sup>1</sup>
TKN	1.8 mg/L	NE

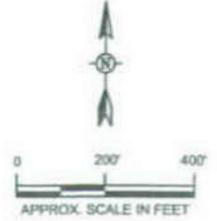
IRPMW39	Dec-05	Action Level
AMMONIUM AS N	0.67 mg/L	NE
NITRATE AS N	0.17 mg/L	10 mg/L <sup>1</sup>
TKN	0.97 mg/L	NE

- LEGEND:**
- DZB MONITORING WELL
  - ⊕ IRP AND BUILDING 70 MONITORING WELL
  - SOLID WASTE MANAGEMENT UNIT

**Notes:**  
 Bold values exceed the action level.

0.19 / 0.16 Duplicate sample  
 1 MCL, EPA primary maximum contaminant level for drinking water  
 2 PRG, EPA Region IX preliminary remediation goal for tap water  
 3 PRG for Dinitrotoluene mixture  
 c Calibration exceedance  
 EPA Environmental Protection Agency  
 g Quantification below reporting limit  
 J Estimated concentrations  
 J+ Estimated concentrations with high bias

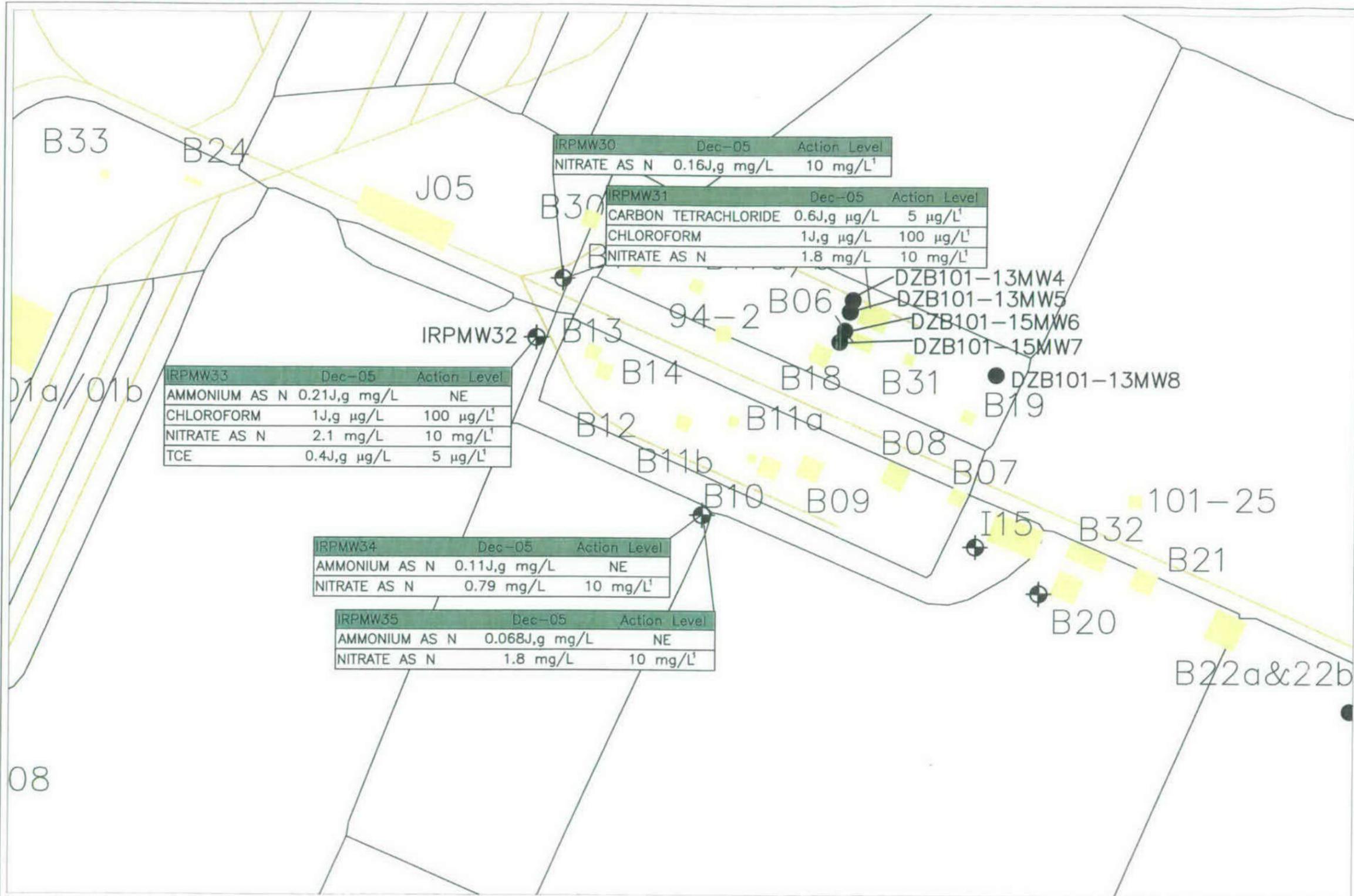
MCL Maximum contaminant level  
 µg/L Microgram per liter  
 mg/L Milligram per liter  
 N Nitrogen  
 ND Not detected  
 NE Not established  
 PCE Tetrachloroethene  
 PRG Preliminary Remediation Goal  
 RDX Cyclotrimethylenetrinitramine  
 TCE Trichloroethene  
 TKN Total Kjeldahl nitrogen



**FIGURE 10**

AREA 101 EAST

Tetra Tech EM Inc



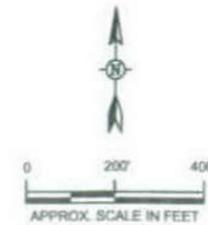
**LEGEND:**

- DZB MONITORING WELL
- ⊕ IRP AND BUILDING 70 MONITORING WELL
- SOLID WASTE MANAGEMENT UNIT

**Notes:**

- Bold values exceed the action level.
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- µg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen



**FIGURE 11**

AREA 101 WEST



**LEGEND:**

- HWAD Production Well
- ⊕ IRP AND BUILDING 70 MONITORING WELL
- SOLID WASTE MANAGEMENT UNIT

**Notes:**

Bold values exceed the action level.

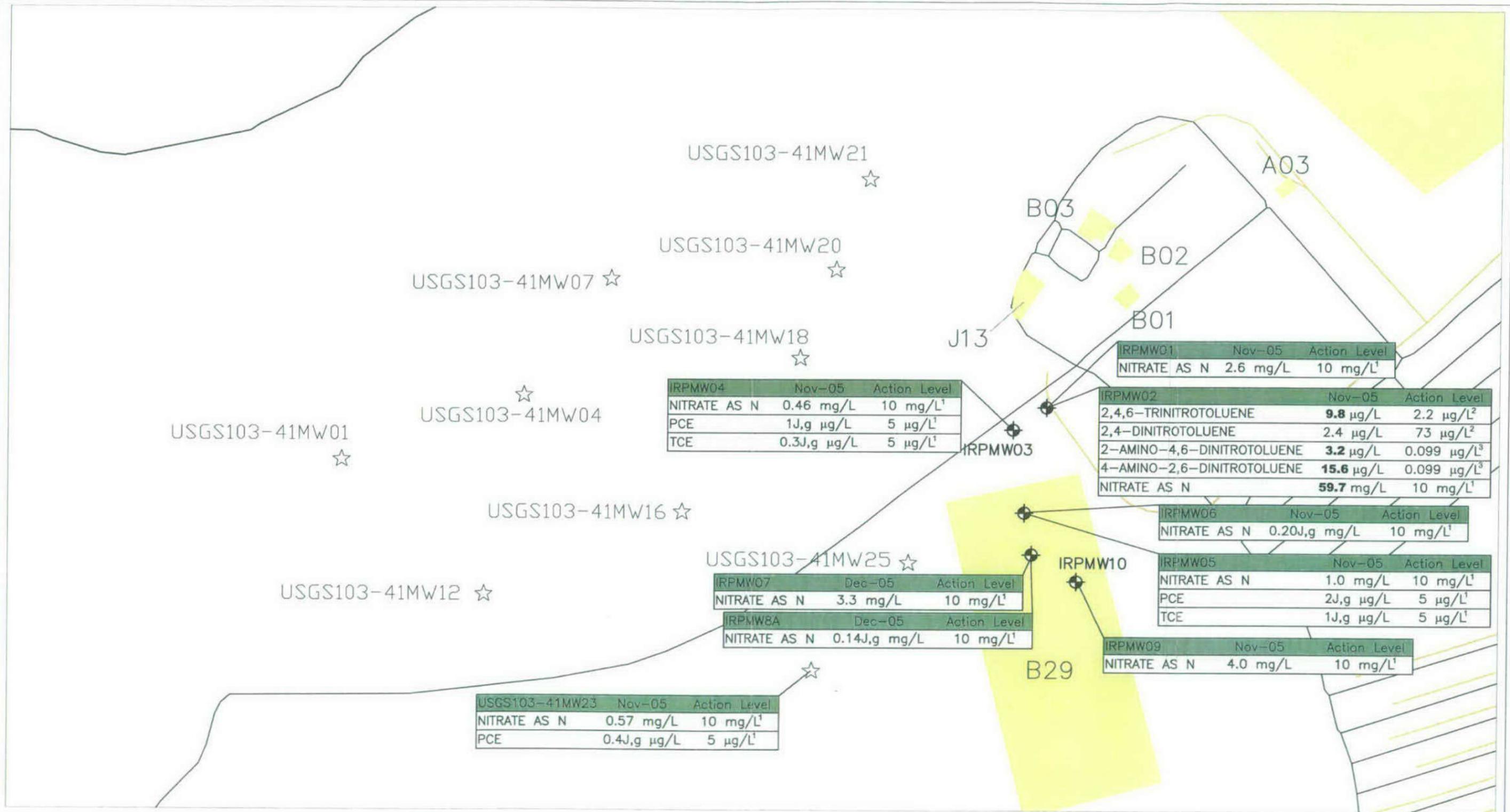
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- µg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen



**FIGURE 12**

SOLID WASTE MANAGEMENT UNIT  
A08



USGS103-41MW21 ☆  
 USGS103-41MW20 ☆  
 USGS103-41MW07 ☆  
 USGS103-41MW18 ☆  
 USGS103-41MW04 ☆  
 USGS103-41MW01 ☆

USGS103-41MW04 ☆  
 USGS103-41MW16 ☆  
 USGS103-41MW25 ☆  
 USGS103-41MW12 ☆

USGS103-41MW18 ☆

IRPMW04	Nov-05	Action Level
NITRATE AS N	0.46 mg/L	10 mg/L <sup>1</sup>
PCE	1J,g μg/L	5 μg/L <sup>1</sup>
TCE	0.3J,g μg/L	5 μg/L <sup>1</sup>

IRPMW03

IRPMW01	Nov-05	Action Level
NITRATE AS N	2.6 mg/L	10 mg/L <sup>1</sup>

IRPMW02	Nov-05	Action Level
2,4,6-TRINITROTOLUENE	<b>9.8</b> μg/L	2.2 μg/L <sup>2</sup>
2,4-DINITROTOLUENE	2.4 μg/L	73 μg/L <sup>2</sup>
2-AMINO-4,6-DINITROTOLUENE	<b>3.2</b> μg/L	0.099 μg/L <sup>3</sup>
4-AMINO-2,6-DINITROTOLUENE	<b>15.6</b> μg/L	0.099 μg/L <sup>3</sup>
NITRATE AS N	<b>59.7</b> mg/L	10 mg/L <sup>1</sup>

IRPMW06	Nov-05	Action Level
NITRATE AS N	0.20J,g mg/L	10 mg/L <sup>1</sup>

USGS103-41MW25 ☆

IRPMW07	Dec-05	Action Level
NITRATE AS N	<b>3.3</b> mg/L	10 mg/L <sup>1</sup>

IRPMW8A	Dec-05	Action Level
NITRATE AS N	0.14J,g mg/L	10 mg/L <sup>1</sup>

IRPMW10

IRPMW05	Nov-05	Action Level
NITRATE AS N	1.0 mg/L	10 mg/L <sup>1</sup>
PCE	2J,g μg/L	5 μg/L <sup>1</sup>
TCE	1J,g μg/L	5 μg/L <sup>1</sup>

IRPMW09	Nov-05	Action Level
NITRATE AS N	4.0 mg/L	10 mg/L <sup>1</sup>

USGS103-41MW23	Nov-05	Action Level
NITRATE AS N	0.57 mg/L	10 mg/L <sup>1</sup>
PCE	0.4J,g μg/L	5 μg/L <sup>1</sup>

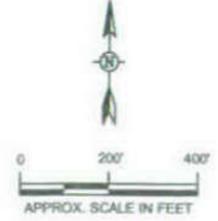
LEGEND:

- ☆ US Geological Survey Monitoring Well
- ⊕ IRP AND BUILDING 70 MONITORING WELL
- SOLID WASTE MANAGEMENT UNIT

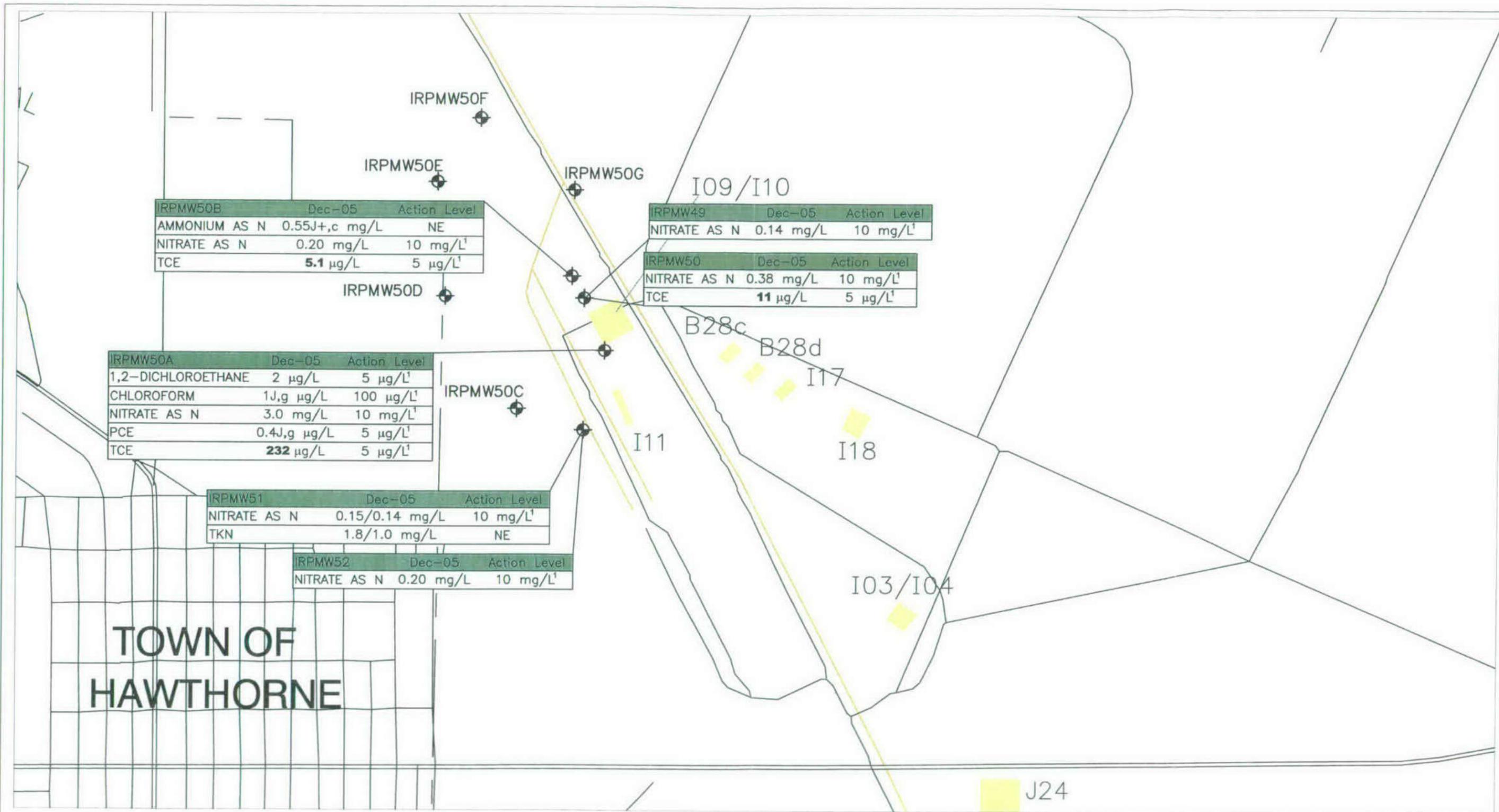
Notes:

- Bold values exceed the action level.
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- μg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen



**FIGURE 13**  
 SOLID WASTE MANAGEMENT UNIT  
 B29  
 Tetra Tech EM Inc



IRPMW50B	Dec-05	Action Level
AMMONIUM AS N	0.55J+,c mg/L	NE
NITRATE AS N	0.20 mg/L	10 mg/L <sup>1</sup>
TCE	<b>5.1</b> µg/L	5 µg/L <sup>1</sup>

IRPMW49	Dec-05	Action Level
NITRATE AS N	0.14 mg/L	10 mg/L <sup>1</sup>

IRPMW50	Dec-05	Action Level
NITRATE AS N	0.38 mg/L	10 mg/L <sup>1</sup>
TCE	<b>11</b> µg/L	5 µg/L <sup>1</sup>

IRPMW50A	Dec-05	Action Level
1,2-DICHLOROETHANE	2 µg/L	5 µg/L <sup>1</sup>
CHLOROFORM	1J,g µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	3.0 mg/L	10 mg/L <sup>1</sup>
PCE	0.4J,g µg/L	5 µg/L <sup>1</sup>
TCE	<b>232</b> µg/L	5 µg/L <sup>1</sup>

IRPMW51	Dec-05	Action Level
NITRATE AS N	0.15/0.14 mg/L	10 mg/L <sup>1</sup>
TKN	1.8/1.0 mg/L	NE

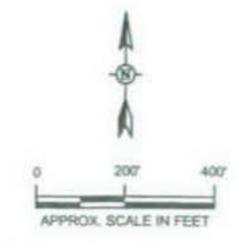
IRPMW52	Dec-05	Action Level
NITRATE AS N	0.20 mg/L	10 mg/L <sup>1</sup>

**TOWN OF HAWTHORNE**

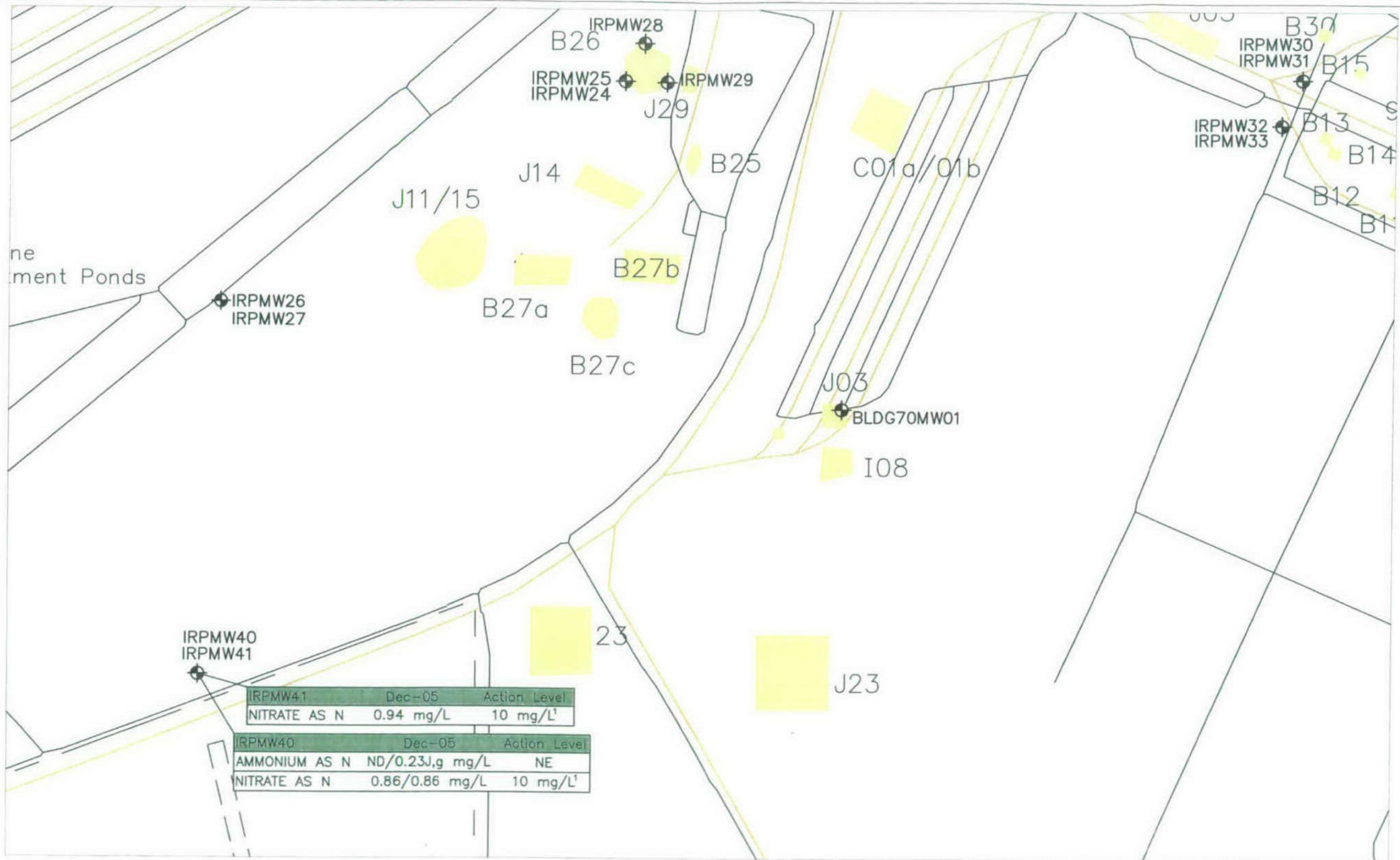
**LEGEND:**  
 IRP AND BUILDING 70 MONITORING WELL  
 SOLID WASTE MANAGEMENT UNIT

**Notes:**  
 Bold values exceed the action level.  
 0.19 / 0.16 Duplicate sample  
 1 MCL, EPA primary maximum contaminant level for drinking water  
 2 PRG, EPA Region IX preliminary remediation goal for tap water  
 3 PRG for Dinitrotoluene mixture  
 c Calibration exceedance  
 EPA Environmental Protection Agency  
 g Quantification below reporting limit  
 J Estimated concentrations  
 J+ Estimated concentrations with high bias

MCL Maximum contaminant level  
 µg/L Microgram per liter  
 mg/L Milligram per liter  
 N Nitrogen  
 ND Not detected  
 NE Not established  
 PCE Tetrachloroethene  
 PRG Preliminary Remediation Goal  
 RDX Cyclotrimethylenetrinitramine  
 TCE Trichloroethene  
 TKN Total Kjeldahl nitrogen



**FIGURE 14**  
 SOLID WASTE MANAGEMENT UNIT  
 I09/I10  
 Tetra Tech EM Inc



IRPMW41	Dec-05	Action Level
NITRATE AS N	0.94 mg/L	10 mg/L <sup>1</sup>
IRPMW40	Dec-05	Action Level
AMMONIUM AS N	ND/0.23J,g mg/L	NE
NITRATE AS N	0.86/0.86 mg/L	10 mg/L <sup>1</sup>

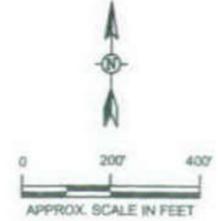
**LEGEND:**

- DZB MONITORING WELL
- IRP AND BUILDING 70 MONITORING WELL
- SOLID WASTE MANAGEMENT UNIT

**Notes:**

- Bold values exceed the action level.
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
- J+ Estimated concentrations with high bias

- MCL Maximum contaminant level
- µg/L Microgram per liter
- mg/L Milligram per liter
- N Nitrogen
- ND Not detected
- NE Not established
- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen



**FIGURE 15**

**SOLID WASTE MANAGEMENT UNIT**  
J03

Tetra Tech EM Inc

Hawthorne Army Depot  
Wastewater Treatment  
Ponds (Closed April 2003)

IRPMW42	Dec-05	Action Level
BROMODICHLOROMETHANE	<b>0.3J,g</b> µg/L	0.18 µg/L <sup>2</sup>
CHLOROFORM	4.6 µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	1.8 mg/L	10 mg/L <sup>1</sup>
TKN	0.46 mg/L	NE

IRPMW43	Dec-05	Action Level
CARBON TETRACHLORIDE	0.5J,g µg/L	5 µg/L <sup>1</sup>
CHLOROFORM	3 µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	2.5 mg/L	10 mg/L <sup>1</sup>
TKN	0.66 mg/L	NE

IRPMW46	Dec-05	Action Level
AMMONIUM AS N	0.35 mg/L	NE
CHLOROFORM	3 µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	1.4 mg/L	10 mg/L <sup>1</sup>

IRPMW44	Dec-05	Action Level
BROMODICHLOROMETHANE	<b>0.5J,g</b> µg/L	0.18 µg/L <sup>2</sup>
CHLOROFORM	4 µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	2.8 mg/L	10 mg/L <sup>1</sup>

IRPMW47	Dec-05	Action Level
BROMODICHLOROMETHANE	<b>0.3J,g</b> µg/L	0.18 µg/L <sup>2</sup>
CHLOROFORM	3 µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	1.4 mg/L	10 mg/L <sup>1</sup>

IRPMW45	Dec-05	Action Level
AMMONIUM AS N	0.15J,g mg/L	NE
CHLOROFORM	2 µg/L	100 µg/L <sup>1</sup>
DIBROMOCHLOROMETHANE	<b>0.3J,g</b> µg/L	0.13 µg/L <sup>2</sup>
NITRATE AS N	1.3 mg/L	10 mg/L <sup>1</sup>

IRPMW48	Dec-05	Action Level
BROMODICHLOROMETHANE	<b>0.3J,g</b> µg/L	0.18 µg/L <sup>2</sup>
CHLOROFORM	3 µg/L	100 µg/L <sup>1</sup>
NITRATE AS N	1.5 mg/L	10 mg/L <sup>1</sup>

LEGEND:

- HWAD Production Well
- ⊕ IRP AND BUILDING 70 MONITORING WELL
- SOLID WASTE MANAGEMENT UNIT

Notes:

- Bold values exceed the action level.
- 0.19 / 0.16 Duplicate sample
- 1 MCL, EPA primary maximum contaminant level for drinking water
- 2 PRG, EPA Region IX preliminary remediation goal for tap water
- 3 PRG for Dinitrotoluene mixture
- c Calibration exceedance
- EPA Environmental Protection Agency
- g Quantification below reporting limit
- J Estimated concentrations
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- MCL Maximum contaminant level
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- N Nitrogen
- ND Not detected
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- PCE Tetrachloroethene
- PRG Preliminary Remediation Goal
- RDX Cyclotrimethylenetrinitramine
- TCE Trichloroethene
- TKN Total Kjeldahl nitrogen

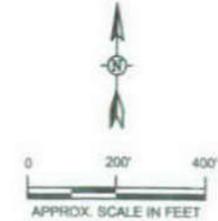
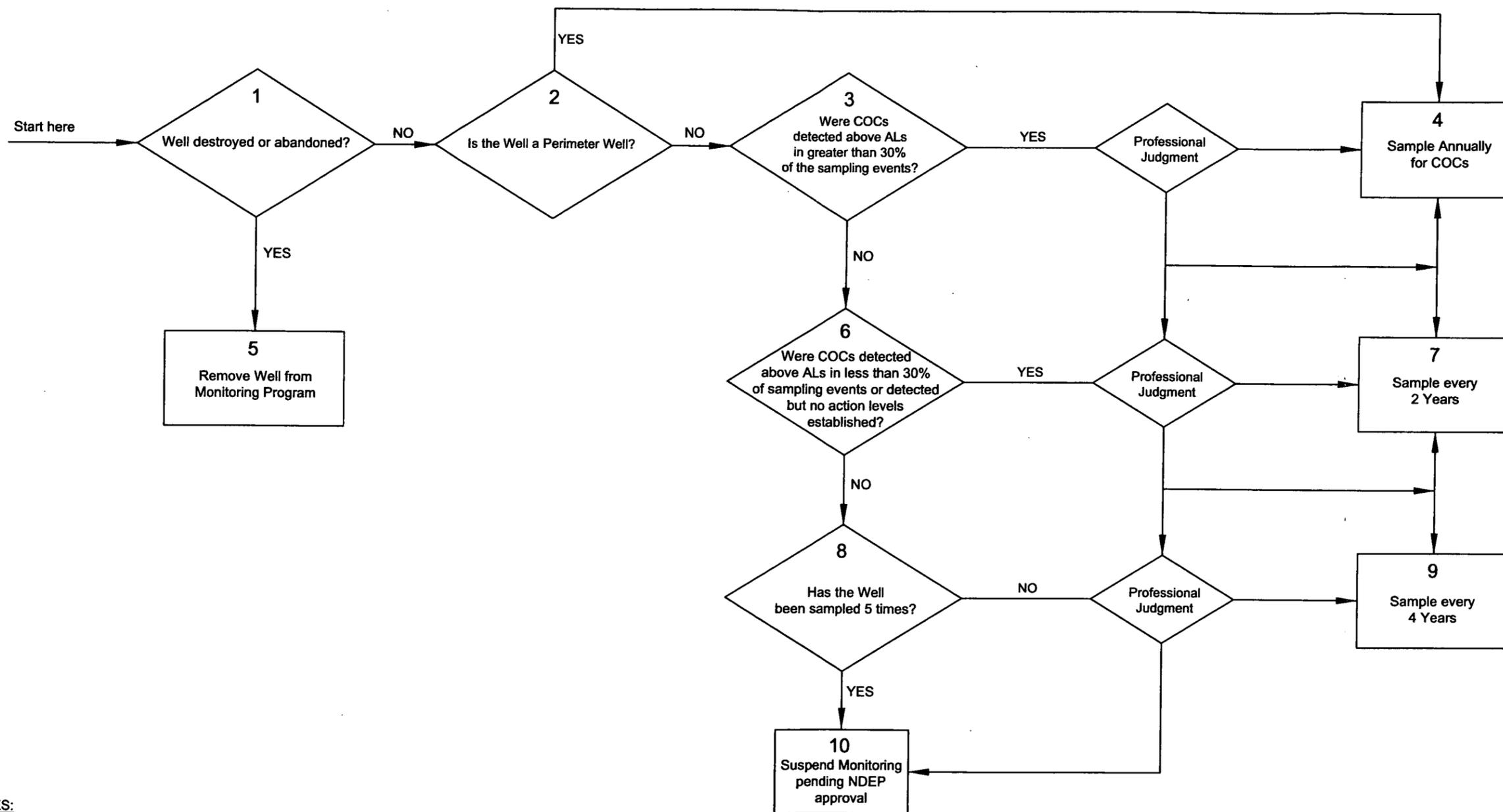


FIGURE 16

SOLID WASTE MANAGEMENT UNIT  
J12/H04



**NOTES:**

1. Professional Judgment Criteria used includes the following:  
co-located wells, upgradient or downgradient wells, previous detections,  
status of the SWMU, historical use of the area,  
remedial action at the SWMU, wells necessary for perimeter monitoring,  
double screened wells and abandoned or destroyed wells.

2. Professional Judgment decisions were made by members of  
HWAD, NDEP, and USACE.

AL = Action Level  
COC = Chemical of Concern  
HWAD = Hawthorne Army Depot  
NDEP = Nevada Division of Environmental Protection  
SWMU = Solid Waste Management Unit  
USACE = United States Army Corps of Engineers

**FIGURE 17**

**BASEWIDE GROUNDWATER MONITORING  
PROGRAM CRITERIA  
HAWTHORNE ARMY DEPOT  
HAWTHORNE, NEVADA**

**TABLE 1**  
**BASEWIDE GROUNDWATER MONITORING WELL CONSTRUCTION AND 2005 WATER ELEVATION DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 1 OF 3)**

Monitoring Well ID	Site ID	Well Type	Constructed Well Depth ft TOC	Depth to Bottom of Screen ft TOC	Depth to Top of Screen ft TOC	Screen Length ft	Sump Length ft	Measured Well Depth ft TOC	Depth to Water from TOC ft	Measured Date	Northing <sup>1</sup> ft	Easting <sup>1</sup> ft	TOC Elevation ft amsl	Groundwater Elevation ft amsl
BLDG70MW01	Bldg 70	WT	130.09	130.09	100.09	30	0	130.3	104.15	12/1/2005	1387112.9	491943.3	4161.95	4057.8
DZB101-44MW1	Area 101	WT	156.44	151.44	136.44	15	5	157.4	141.6	11/30/2005	1387434.91	502259.68	4254.35	4112.75
DZB101-44MW2	Area 101	WT	157.72	152.72	137.72	15	5	158	141.04	11/30/2005	1387366.49	502232.38	4253.59	4112.55
DZB101-44MW3	Area 101	WT	157.25	147.25	127.25	20	10	158.75	145.56	11/30/2005	1387197.96	502763.86	4258.8	4113.24
DZB101-13MW4	Area 101	WT	120.42	110.42	95.42	15	10	120.4	98.3	12/1/2005	1390225.1	498623.5	4193.78	4095.48
DZB101-13MW5	Area 101	WT	115.62	105.62	90.62	15	10	117.5	98.28	12/1/2005	1390178.9	498602.5	4194.35	4096.07
DZB101-15MW6/7	Area 101	WT	114.03	109.03	94.03	15	5	127.85 <sup>2</sup>	98.5	12/1/2005	1389928.1	498537.5	4194.78	4096.28
DZB101-13MW8	Area 101	WT	138.85	128.85	108.85	20	10	138.7	111.64	12/1/2005	1389763.64	499976.67	4210.27	4098.63
HWAAP02	00B	SW	190.56	190.56	180.56	10	0	200.49	Dry	12/1/2005	1336369.6	510896.4	5028.63	NA
HWAAP09	00B	SW	177.86	175.86	165.86	10	2	178	106.06	12/1/2005	1339182.1	511539.5	4977	4870.94
HWAAP10	00B	SW	103.24	101.24	91.24	10	2	109.9	66.82	12/1/2005	1341569.8	512264.9	4900.7	4833.88
HWAAP15	102	SW	162	160	150	10	2	157	127.16	11/30/2005	1398414.1	503653.5	NA	NA
HWAAP16	102	WT	127.8	125.8	115.8	10	2	121.68	107.99	12/1/2005	1398285.7	502376.8	4216.27	4108.28
HWAAP17	102	WT	128.34	126.34	116.34	10	2	128.1	102.44	12/1/2005	1397833.7	502653.6	4212.32	4109.88
HWAAP18	102	WT	120.4	118.4	108.4	10	2	110.58	102.01	12/1/2005	1397977	502327.8	4210.62	4108.61
IRPMW01*	WADF	SW	63.2	62.7	57.7	5	0.5	64.14	2.19	11/29/2005	1396738.5	477575.8	4013.72	4011.53
IRPMW02*	WADF	WT	32	31.5	21.5	10	0.5	32.74	26.13	11/29/2005	1396749.4	477602.6	4013.68	3987.55
IRPMW03**a	WADF	SW	76.86	76.36	71.36	5	0.5	NA	NA	11/29/2005	1396119.1	476435.7	4007.38	NA
IRPMW04**b	WADF	WT	28.62	28.12	18.12	10	0.5	28.64	20.68	11/29/2005	1396100.1	476414.8	4007.06	3986.38
IRPMW05	B29	SW	76.7	76.2	71.2	5	0.5	76.68	9.24	11/29/2005	1396653.4	478583.1	4021.61	4012.37
IRPMW06	B29	WT	33.44	32.94	22.94	10	0.5	33.44	28.76	11/29/2005	1396668.3	478565.6	4021.79	3993.03
IRPMW07	B29	SW	82.77	82.27	77.27	5	0.5	82.7	9.09	11/29/2005	1395881.1	478636.2	4022.51	4013.42
IRPMW08A	B29	WT	34.1	33.77	18.77	15	0	34.82	27.93	11/29/2005	1395896.4	478628.3	4022.97	3995.04
IRPMW09	B29	SW	81.25	80.75	75.75	5	0.5	81.19	10.04	11/29/2005	1394807.6	478889.1	4025.16	4015.12
IRPMW10	B29	WT	33.57	33.07	23.07	10	0.5	32.68	27.96	11/29/2005	1394788.9	478863.1	4025.43	3997.47
IRPMW11	A08	WT	111.65	111.15	101.15	10	0.5	111.98	106.28	11/30/2005	1388890.7	472946.2	4128.89	4022.61
IRPMW12	A08	WT	76.53	76.03	66.03	10	0.5	77.03	71.86	11/30/2005	1389407	473698.1	4094.39	4022.53
IRPMW13	A08	WT	119.48	118.98	108.98	10	0.5	120.05	113.26	11/30/2005	1386814.1	475092.6	4139.05	4025.79
IRPMW14	WWTA	SW	95.5	95	90	5	0.5	95.5	49.13	11/30/2005	1389340.6	477825.9	4072.04	4022.91
IRPMW15	WWTA	WT	57.13	56.63	46.63	10	0.5	57.65	51.12	11/30/2005	1389321	477832.7	4073	4021.88
IRPMW16	WWTA	SW	92.41	91.91	86.91	5	0.5	92.45	50.27	11/30/2005	1390637.5	482009.6	4073.84	4023.57
IRPMW17	WWTA	WT	57.45	56.95	46.95	10	0.5	57.47	51.05	11/30/2005	1390633.8	481989.8	4074.26	4023.21
IRPMW18	WWTA	SW	109.67	109.17	104.17	5	0.5	109.6	68.37	11/30/2005	1389678.2	483504.7	4093.77	4025.4

**TABLE 1**  
**BASEWIDE GROUNDWATER MONITORING WELL CONSTRUCTION AND 2005 WATER ELEVATION DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 2 OF 3)**

Monitoring Well ID	Site ID	Well Type	Constructed Well Depth ft TOC	Depth to Bottom of Screen ft TOC	Depth to Top of Screen ft TOC	Screen Length ft	Sump Length ft	Measured Well Depth ft TOC	Depth to Water from TOC ft	Measured Date	Northing <sup>1</sup> ft	Easting <sup>1</sup> ft	TOC Elevation ft amsl	Groundwater Elevation ft amsl
IRPMW19	WWTA	WT	70.2	69.7	59.7	10	0.5	70.19	65.77	11/30/2005	1389693.2	483492.3	4092.79	4027.02
IRPMW20	WWTA	SW	119.65	119.15	114.15	5	0.5	118.25	71.52	11/30/2005	1387331.9	478491.2	4098.21	4026.69
IRPMW21	WWTA	WT	76.94	76.44	66.44	10	0.5	76.25	71.76	11/30/2005	1387354.7	478496.5	4097.8	4026.04
IRPMW22	Area 111	SW	147.95	147.45	142.45	5	0.5	148.1	65.95	11/30/2005	1394096.1	490253.8	4116.32	4050.37
IRPMW23	Area 111	WT	86.05	85.55	75.55	10	0.5	86.6	80.97	11/30/2005	1394081.4	490268.7	4116.76	4035.79
IRPMW24	J29	SW	155.08	154.58	149.58	5	0.5	155.6	80.19	11/30/2005	1390190.2	489584	4130.68	4050.49
IRPMW25	J29	WT	117.1	116.6	111.6	5	0.5	117.35	80.4	11/30/2005	1390203.1	489568.7	4130.88	4050.48
IRPMW26	Area 100	SW	142.92	142.42	137.42	5	0.5	143.2	86.3	11/30/2005	1389353.5	487041.1	4115.9	4029.6
IRPMW27	Area 100	WT	94.61	94.11	84.11	10	0.5	94.87	87.61	11/30/2005	1389370.34	487024.5	4115.57	4027.96
IRPMW28	J29	SW	111.03	110.53	105.53	5	0.5	111.29	73.02	11/30/2005	1390863.8	489521.4	4124	4050.98
IRPMW29	J29	WT	101.87	101.37	91.37	10	0.5	101.84	94.27	11/30/2005	1390479.3	490294	4131.62	4037.35
IRPMW30	Area 101	SW	168.12	167.62	162.62	5	0.5	168.53	84.97	12/1/2005	1390854.2	496270.9	4178.97	4094
IRPMW31	Area 101	WT	90.41	89.91	79.91	10	0.5	90.45	86.12	12/1/2005	1390862.8	496291.9	4178.45	4092.33
IRPMW32	Area 101	SW	177.89	177.39	172.39	5	0.5	178.3	90.15	12/1/2005	1390150.2	496024.3	4182.94	4092.79
IRPMW33	Area 101	WT	97.88	97.38	87.38	10	0.5	98.93	90.83	12/1/2005	1390140.3	496046.1	4183.23	4092.4
IRPMW34	Area 101	SW	141.13	140.63	135.63	5	0.5	143.8	101.13	11/30/2005	1388675.1	497435.4	4194.47	4093.34
IRPMW35	Area 101	WT	106.5	106	96	10	0.5	106.07	101.29	11/30/2005	1388680.4	497454	4194.77	4093.48
IRPMW36	Area 101	SW	194.71	194.21	189.21	5	0.5	193.96	135.6	11/30/2005	1388158.7	499965.1	4236.93	4101.33
IRPMW37	Area 101	WT	140.9	140.4	130.4	10	0.5	140.9	134.56	11/30/2005	1388187	499981.8	4237.34	4102.78
IRPMW37A	Area 101	WT	153.38	152.88	137.88	15	0.5	153.15	128.85	11/30/2005	1388339.7	499608.8	4226.31	4097.46
IRPMW38	Dock2	SW	238.43	237.93	232.93	5	0.5	238.7	185.44	11/30/2005	1385582.4	507488	4309.88	4124.44
IRPMW39	Dock2	WT	191.54	191.04	181.04	10	0.5	191.74	85.04	11/30/2005	1385609.2	507485.3	4309.51	4224.47
IRPMW40	Runway	SW	156.45	155.95	150.95	5	0.5	158.4	118.37	11/30/2005	1384539.6	486191.5	4153.65	4035.28
IRPMW41	Runway	WT	124.18	123.68	113.68	10	0.5	124.3	118.5	11/30/2005	1384530.9	486171.1	4153.99	4035.49
IRPMW42	J12	WT	110.73	110.23	100.23	10	0.5	111.01	103.08	11/30/2005	1385691.7	480209	4130.96	4027.88
IRPMW43	J12	WT	106.68	106.18	96.18	10	0.5	107.06	98.63	11/30/2005	1385213.9	480731.3	4126.68	4028.05
IRPMW44	J12	WT	102.69	102.19	92.19	10	0.5	102.88	98.53	11/30/2005	1384857.4	480029.7	4126.77	4028.24
IRPMW45	H04	WT	116.65	116.15	106.15	10	0.5	116.8	111.47	11/30/2005	1383697.7	480544.2	4140.06	4028.59
IRPMW46	H04	WT	116.05	115.55	105.55	10	0.5	116.16	110.96	11/30/2005	1383881.9	481025.2	4139.45	4028.49
IRPMW47	H04	WT	116.35	115.85	105.85	10	0.5	116.41	111.11	11/30/2005	1384082.9	481567.1	4139.34	4028.23
IRPMW48	H04	WT	122.73	122.23	112.23	10	0.5	122.85	117.19	11/30/2005	1383500.7	481184.9	4145.68	4028.49
IRPMW49	Area 104	SW	238.21	237.71	232.71	5	0.5	238.7	181.18	11/30/2005	1378815.8	492951	4257.01	4075.83
IRPMW50	Area 104	WT	186.22	185.72	175.72	10	0.5	186.26	180.85	11/30/2005	1378835.8	492954.2	4256.6	4075.75

**TABLE 1**  
**BASEWIDE GROUNDWATER MONITORING WELL CONSTRUCTION AND 2005 WATER ELEVATION DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 3 OF 3)**

Monitoring Well ID	Site ID	Well Type	Constructed Well Depth ft TOC	Depth to Bottom of Screen ft TOC	Depth to Top of Screen ft TOC	Screen Length ft	Sump Length ft	Measured Well Depth ft TOC	Depth to Water from TOC ft	Measured Date	Northing <sup>1</sup> ft	Easting <sup>1</sup> ft	TOC Elevation ft amsl	Groundwater Elevation ft amsl
IRPMW50A	I09/I10	WT	198.68	197	182	15	0.5	194.45	185.75	11/30/2005	1378420.2	493118.6	4261.45	4075.7
IRPMW50B	I09/I10	WT	197.73	195	180	15	0.5	197.55	176.29	11/30/2005	1379204.9	492770	4251.76	4075.47
IRPMW51	Area 104	SW	249.2	248.7	243.7	5	0.5	249.03	202.22	11/30/2005	1377577.5	492896.4	4278.13	4075.91
IRPMW52	Area 104	WT	208.81	208.31	198.31	10	0.5	209	202.15	11/30/2005	1377556.5	492893.2	4278.04	4075.89
IRPMW56	B04	WT	181.66	180	140	40	0.5	182.1	146.83	11/30/2005	1387170.8	502815.3	4260.01	4113.18
USGS103-41MW01*	B29	WT	23	17	7	10	6	15.4	11.1	11/29/2005	<b>1396799.78</b>	<b>471271.89</b>	3977.1	3966
USGS103-41MW04*	B29	WT	28	17	7	10	11	22.85	11.9	11/29/2005	<b>1397537.9</b>	<b>473135.4</b>	3978.9	3967
USGS103-41MW07*	B29	WT	33.5	22.5	12.5	10	11	31.29	15.3	11/29/2005	<b>1398766.52</b>	<b>474042.32</b>	3980.75	3965.45
USGS103-41MW12	B29	WT	33.5	22.5	12.5	10	11	29.49	13.99	11/29/2005	<b>1395360.4</b>	<b>473015.8</b>	3989.74	3975.75
USGS103-41MW16	B29	WT	37	25.5	15.5	10	12	32	16.25	12/2/2005	<b>1396308.6</b>	<b>474794.1</b>	3992.86	3976.61
USGS103-41MW18	B29	WT	35.5	24.5	14.5	10	11	27.25	19.62	12/2/2005	<b>1397936.4</b>	<b>476016.5</b>	3997.06	3977.44
USGS103-41MW20*	B29	WT	36	25	15	10	11	28.8	18.21	12/2/2005	<b>1398862.1</b>	<b>476376.9</b>	3997.39	3979.18
USGS103-41MW21*	B29	WT	33	26	16	10	7	26.39	19.84	11/30/2005	<b>1399808.7</b>	<b>476723.6</b>	3997.49	3977.65
USGS103-41MW23	B29	WT	36	25	15	10	11	31.23	17.28	11/29/2005	<b>1394643.2</b>	<b>476156.9</b>	4006.68	3989.4
USGS103-41MW25	B29	WT	38	27	17	10	11	27.32	20.94	11/29/2005	<b>1395780.6</b>	<b>477146.1</b>	4010.17	3989.23

Notes:

\* = Perimeter well

ft = Feet

ft amsl = Feet above mean sea level

NA = Value could not be calculated because well was dry or TOC elevation was not available.

SW = Submerged well

TOC = Top of well casing

WT = Water table well

<sup>a</sup> IRPMW03 is an artesian well and the water level is higher than the TOC.

<sup>b</sup> IRPMW04 has roots at the water level; depth to water and groundwater elevation are estimated.

Northing and Easting based on NAD 1929 survey datum. Bold values indicate new data obtained with global positioning system or survey pin located on well pad (Tetra Tech EM, Inc.; November-December 2005 well inventory).

<sup>1</sup> = Existing measurements are from the "Five-Year Groundwater Monitoring Well Evaluation Report of the Basewide Monitoring Program" (Tetra Tech, Inc. 2002)

<sup>2</sup> = Total depth is from existing data. Packer in well separating two different screened intervals.

TABLE 2

**2005 GROUNDWATER MONITORING FREQUENCY  
AND ANALYSIS SCHEDULE  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 1 OF 3)**

Well	December 2005			
	Explosives (EPA 8330) Ammonium Picrate (EPA 8330M)	NO3 + NO2 (EPA 300.1) Kjeldahl Nitrogen (EPA 351.1)	VOCs (EPA 8260B)	OC Pesticides/PCBs (EPA 8081A/SW-846)
BLDG70MW01	x	x	x	
DZB101-13MW4	x	x	x	
DZB101-13MW5	x	x	x	
DZB101-13MW8	x	x	x	
DZB101-15MW6/7	x	x	x	
DZB101-44MW1	x	x	x	
DZB101-44MW2	x	x	x	
DZB101-44MW3	x	x	x	
HWAAP02	x	x	x	x
HWAAP09	x	x	x	
HWAAP10	x	x	x	
HWAAP15	x	x	x	
HWAAP16	x	x	x	
HWAAP17	x	x	x	
HWAAP18	x	x	x	
IRPMW01*	x	x	x	
IRPMW02*	x	x	x	
IRPMW03*	x	x	x	
IRPMW04*	x	x	x	
IRPMW05	x	x	x	
IRPMW06	x	x	x	
IRPMW07	x	x	x	
IRPMW08A	x	x	x	
IRPMW09	x	x	x	
IRPMW10	x	x	x	
IRPMW11	x	x	x	
IRPMW12	x	x	x	
IRPMW13	x	x	x	
IRPMW14	x	x	x	
IRPMW15	x	x	x	
IRPMW16	x	x	x	
IRPMW17	x	x	x	
IRPMW18	x	x	x	
IRPMW19	x	x	x	

TABLE 2

2005 GROUNDWATER MONITORING FREQUENCY  
AND ANALYSIS SCHEDULE  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 2 OF 3)

Well	December 2005			
	Explosives (EPA 8330) Ammonium Picrate (EPA 8330M)	NO3 + NO2 (EPA 300.1) Kjeldahl Nitrogen (EPA 351.1)	VOCs (EPA 8260B)	OC Pesticides/PCBs (EPA 8081A/SW-846)
IRPMW20	X	X	X	
IRPMW21	X	X	X	
IRPMW22	X	X	X	
IRPMW23	X	X	X	
IRPMW24	X	X	X	
IRPMW25	X	X	X	
IRPMW26	X	X	X	
IRPMW27	X	X	X	
IRPMW28	X	X	X	
IRPMW29	X	X	X	
IRPMW30	X	X	X	
IRPMW31	X	X	X	
IRPMW32	X	X	X	
IRPMW33	X	X	X	
IRPMW34	X	X	X	
IRPMW35	X	X	X	
IRPMW36	X	X	X	
IRPMW37	X	X	X	
IRPMW37A	X	X	X	
IRPMW38	X	X	X	
IRPMW39	X	X	X	
IRPMW40	X	X	X	
IRPMW41	X	X	X	
IRPMW42	X	X	X	
IRPMW43	X	X	X	
IRPMW44	X	X	X	
IRPMW45	X	X	X	
IRPMW46	X	X	X	
IRPMW47	X	X	X	
IRPMW48	X	X	X	
IRPMW49	X	X	X	
IRPMW50	X	X	X	
IRPMW50A	X	X	X	
IRPMW50B	X	X	X	

TABLE 2

2005 GROUNDWATER MONITORING FREQUENCY  
AND ANALYSIS SCHEDULE  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 3 OF 3)

Well	December 2005			
	Explosives (EPA 8330) Ammonium Picrate (EPA 8330M)	NO3 + NO2 (EPA 300.1) Kjeldahl Nitrogen (EPA 351.1)	VOCs (EPA 8260B)	OC Pesticides/PCBs (EPA 8081A/SW-846)
IRPMW51	x	x	x	
IRPMW52	x	x	x	
IRPMW56	x	x	x	
USGS103-41MW01*	x	x	x	
USGS103-41MW04*	x	x	x	
USGS103-41MW07*	x	x	x	
USGS103-41MW12	x	x	x	
USGS103-41MW16	x	x	x	
USGS103-41MW18	x	x	x	
USGS103-41MW20*	x	x	x	
USGS103-41MW21*	x	x	x	
USGS103-41MW23	x	x	x	
USGS103-41MW25	x	x	x	

Notes:

\* = Perimeter well

EPA = U.S. Environmental Protection Agency (analytical method)

NO2 = Nitrogen dioxide

NO3 = Nitrate

OC = Organochlorine

PCB = Polychlorinated biphenyl

VOC = Volatile organic compound

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
(PAGE 1 OF 7)

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
IRPMW22	103	Explosives	16	N	N	Y	Y	C				Y	
IRPMW22	103	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW22	103	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW23	103	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW23	103	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW23	103	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW24	103	Explosives	4	N	N	N	N	C	Y				
IRPMW24	103	Nitrogen	4	N	N	Y	N	C	Y				
IRPMW24	103	VOCs	4	N	N	N	N	C	Y				
IRPMW25	103	Explosives	4	N	N	N	N	C	Y				
IRPMW25	103	Nitrogen	4	N	N	Y	N	C	Y				
IRPMW25	103	VOCs	4	N	N	N	N	C	Y				
IRPMW26	103	Explosives	4	N	N	N	N	N/C			Y		
IRPMW26	103	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW26	103	VOCs	4	N	N	Y	N	C			Y		
IRPMW27	103	Explosives	4	N	N	N	N	N/C			Y		
IRPMW27	103	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW27	103	VOCs	4	N	N	N	N	N/C			Y		
IRPMW28	103	Explosives	4	N	N	N	N	C	Y				
IRPMW28	103	Nitrogen	4	N	N	Y	N	C	Y				
IRPMW28	103	VOCs	4	N	N	Y	N	C	Y				
IRPMW29	103	Explosives	4	N	N	N	N	C	Y				
IRPMW29	103	Nitrogen	4	N	N	Y	N	C	Y				
IRPMW29	103	VOCs	4	N	N	Y	N	C	Y				
DZB101-44MW1	101 East	Explosives	19	N	Y	N/A	Y	C	Y				
DZB101-44MW1	101 East	Nitrogen	10	N	N	Y	Y	C	Y				
DZB101-44MW1	101 East	VOCs	13	N	N	Y	Y	C	Y				
DZB101-44MW2	101 East	Explosives	19	N	Y	N/A	Y	C	Y				
DZB101-44MW2	101 East	Nitrogen	10	N	N	Y	Y	C	Y				
DZB101-44MW2	101 East	VOCs	13	N	N	Y	Y	C	Y				
DZB101-44MW3	101 East	Explosives	18	N	Y	N/A	Y	C	Y				
DZB101-44MW3	101 East	Nitrogen	11	N	Y	N/A	Y	C	Y				
DZB101-44MW3	101 East	VOCs	13	N	N	N	Y	C	Y				
IRPMW36	101 East	Explosives	16	N	N	Y	Y	C			Y		
IRPMW36	101 East	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW36	101 East	VOCs	19	N	N	Y	Y	N/C		Y			

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 2 OF 7)**

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
IRPMW37	101 East	Explosives	15	N	N	Y	Y	C			Y		
IRPMW37	101 East	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW37	101 East	VOCs	21	N	Y	N/A	Y	N/C	Y				
IRPMW37A	101 East	Explosives	4	N	N	N	N	N/C			Y		
IRPMW37A	101 East	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW37A	101 East	VOCs	4	N	N	N	N	C		Y			
IRPMW38	101 East	Explosives	4	N	N	N	N	N/C			Y		
IRPMW38	101 East	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW38	101 East	VOCs	4	N	N	Y	N	C			Y		
IRPMW39	101 East	Explosives	4	N	N	N	N	N/C			Y		
IRPMW39	101 East	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW39	101 East	VOCs	4	N	N	Y	N	C			Y		
IRPMW56	101 East	Explosives	4	N	Y	N/A	N	N/C	Y				
IRPMW56	101 East	Nitrogen	4	N	N	Y	N	C	Y				
IRPMW56	101 East	VOCs	4	N	N	Y	N	C	Y				
DZB101-13MW4	101 West	Explosives	16	N	N	Y	Y	C				Y	
DZB101-13MW4	101 West	Nitrogen	8	N	N	Y	Y	C				Y	
DZB101-13MW4	101 West	VOCs	16	N	N	Y	Y	C				Y	
DZB101-13MW5	101 West	Explosives	15	N	N	Y	Y	C				Y	
DZB101-13MW5	101 West	Nitrogen	7	N	N	Y	Y	C				Y	
DZB101-13MW5	101 West	VOCs	15	N	N	Y	Y	C				Y	
DZB101-13MW8	101 West	Explosives	16	N	N	N	Y	N/C				Y	
DZB101-13MW8	101 West	Nitrogen	8	N	N	Y	Y	C				Y	
DZB101-13MW8	101 West	VOCs	16	N	N	Y	Y	C				Y	
DZB101-15MW6/7	101 West	Explosives	16	N	N	Y	Y	C				Y	
DZB101-15MW6/7	101 West	Nitrogen	8	N	N	Y	Y	C				Y	
DZB101-15MW6/7	101 West	VOCs	16	N	N	Y	Y	C				Y	
IRPMW30	101 West	Explosives	15	N	N	N	Y	C			Y		
IRPMW30	101 West	Nitrogen	9	N	N	Y	Y	C			Y		
IRPMW30	101 West	VOCs	15	N	N	Y	Y	C			Y		
IRPMW31	101 West	Explosives	17	N	N	N	Y	C		Y			
IRPMW31	101 West	Nitrogen	9	N	Y	N/A	Y	N/C	Y				
IRPMW31	101 West	VOCs	17	N	N	Y	Y	C		Y			
IRPMW32	101 West	Explosives	15	N	N	N	Y	C			Y		
IRPMW32	101 West	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW32	101 West	VOCs	15	N	N	Y	Y	C			Y		

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
(PAGE 3 OF 7)

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
IRPMW33	101 West	Explosives	17	N	N	Y	Y	C			Y		
IRPMW33	101 West	Nitrogen	9	N	N	Y	Y	N/C		Y			
IRPMW33	101 West	VOCs	16	N	N	Y	Y	C			Y		
IRPMW34	101 West	Explosives	16	N	N	Y	Y	N/C		Y			
IRPMW34	101 West	Nitrogen	8	N	Y	N/A	Y	N/C	Y				
IRPMW34	101 West	VOCs	13	N	N	Y	Y	N/C		Y			
IRPMW35	101 West	Explosives	18	N	Y	N/A	Y	N/C	Y				
IRPMW35	101 West	Nitrogen	8	N	Y	N/A	Y	N/C	Y				
IRPMW35	101 West	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW11	A-08	Explosives	4	N	N	N	N	N/C			Y		
IRPMW11	A-08	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW11	A-08	VOCs	4	N	N	N	N	N/C			Y		
IRPMW12	A-08	Explosives	4	N	N	N	N	N/C			Y		
IRPMW12	A-08	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW12	A-08	VOCs	4	N	N	N	N	N/C			Y		
IRPMW13	A-08	Explosives	4	N	N	N	N	N/C			Y		
IRPMW13	A-08	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW13	A-08	VOCs	4	N	N	Y	N	N/C		Y			
IRPMW01*	B-29	Explosives	7	N	N	N	Y	C	Y				
IRPMW01*	B-29	Nitrogen	5	N	N	Y	Y	C	Y				
IRPMW01*	B-29	VOCs	7	N	N	N	Y	C	Y				
IRPMW02*	B-29	Explosives	22	N	Y	N/A	Y	C	Y				
IRPMW02*	B-29	Nitrogen	14	N	Y	N/A	Y	C	Y				
IRPMW02*	B-29	VOCs	19	N	N	N	Y	C	Y				
IRPMW03*	B-29	Explosives	5	N	N	N	Y	C	Y				
IRPMW03*	B-29	Nitrogen	5	N	N	Y	Y	C	Y				
IRPMW03*	B-29	VOCs	5	N	N	N	Y	C	Y				
IRPMW04*	B-29	Explosives	18	N	N	Y	Y	C	Y				
IRPMW04*	B-29	Nitrogen	12	N	N	Y	Y	C	Y				
IRPMW04*	B-29	VOCs	15	N	N	Y	Y	C	Y				
IRPMW05	B-29	Explosives	19	N	N	N	Y	N/C				Y	
IRPMW05	B-29	Nitrogen	9	N	N	Y	Y	N/C		Y			
IRPMW05	B-29	VOCs	19	N	N	Y	Y	N/C		Y			
IRPMW06	B-29	Explosives	9	N	N	N	Y	C			Y		NDEP requested sample interval
IRPMW06	B-29	Nitrogen	9	N	N	Y	Y	N/C		Y			
IRPMW06	B-29	VOCs	9	N	N	N	Y	N/C				Y	

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 4 OF 7)**

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
IRPMW07	B-29	Explosives	8	N	N	N	Y	N/C				Y	
IRPMW07	B-29	Nitrogen	5	N	N	Y	Y	N/C		Y			
IRPMW07	B-29	VOCs	8	N	N	N	Y	N/C				Y	
IRPMW08A	B-29	Explosives	0	N	N/A	N/A	N/A	N/A	Y				
IRPMW08A	B-29	Nitrogen	0	N	N/A	N/A	N/A	N/A		Y			
IRPMW08A	B-29	VOCs	0	N	N/A	N/A	N/A	N/A				Y	
IRPMW09	B-29	Explosives	19	N	N	Y	Y	C				Y	
IRPMW09	B-29	Nitrogen	11	N	Y	N/A	Y	N/C	Y				
IRPMW09	B-29	VOCs	17	N	N	Y	Y	C				Y	
IRPMW10	B-29	Explosives	5	N	N	N	Y	N/C				Y	
IRPMW10	B-29	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW10	B-29	VOCs	5	N	N	N	Y	N/C				Y	
USGS103-41MW01*	B-29	Explosives	1	N	N	Y	N	C	Y				
USGS103-41MW01*	B-29	Nitrogen	1	N	N	Y	N	C	Y				
USGS103-41MW01*	B-29	VOCs	1	N	N	N	N	C	Y				
USGS103-41MW04*	B-29	Explosives	1	N	N	Y	N	C	Y				
USGS103-41MW04*	B-29	Nitrogen	1	N	N	Y	N	C	Y				
USGS103-41MW04*	B-29	VOCs	1	N	N	N	N	C	Y				
USGS103-41MW07*	B-29	Explosives	1	N	Y	N/A	N	C	Y				
USGS103-41MW07*	B-29	Nitrogen	1	N	N	Y	N	C	Y				
USGS103-41MW07*	B-29	VOCs	1	N	Y	N/A	N	C	Y				
USGS103-41MW12	B-29	Explosives	1	N	N	Y	N	N/C		Y			
USGS103-41MW12	B-29	Nitrogen	1	N	N	Y	N	N/C		Y			
USGS103-41MW12	B-29	VOCs	1	N	N	N	N	N/C			Y		
USGS103-41MW16	B-29	Explosives	3	N	N	Y	N	N/C		Y			
USGS103-41MW16	B-29	Nitrogen	2	N	N	Y	N	N/C		Y			
USGS103-41MW16	B-29	VOCs	3	N	N	Y	N	N/C		Y			
USGS103-41MW18	B-29	Explosives	1	N	N	Y	N	N/C		Y			
USGS103-41MW18	B-29	Nitrogen	1	N	N	Y	N	N/C		Y			
USGS103-41MW18	B-29	VOCs	1	N	N	Y	N	N/C		Y			
USGS103-41MW20*	B-29	Explosives	3	N	N	Y	N	C	Y				
USGS103-41MW20*	B-29	Nitrogen	2	N	N	Y	N	C	Y				
USGS103-41MW20*	B-29	VOCs	3	N	N	N	N	C	Y				
USGS103-41MW21*	B-29	Explosives	1	N	N	Y	N	C	Y				
USGS103-41MW21*	B-29	Nitrogen	1	N	N	Y	N	C	Y				
USGS103-41MW21*	B-29	VOCs	1	N	N	N	N	C	Y				

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 5 OF 7)**

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
USGS103-41MW23	B-29	Explosives	2	N	N	Y	N	N/C		Y			
USGS103-41MW23	B-29	Nitrogen	4	N	Y	N/A	N	N/C	Y				
USGS103-41MW23	B-29	VOCs	2	N	N	N	N	N/C			Y		
USGS103-41MW25	B-29	Explosives	1	N	N	Y	N	N/C		Y			
USGS103-41MW25	B-29	Nitrogen	4	N	N	Y	N	N/C		Y			
USGS103-41MW25	B-29	VOCs	1	N	N	Y	N	N/C		Y			
HWAAP15	I-02	Explosives	0	N	N	N	N	C				Y	
HWAAP15	I-02	Nitrogen	0	N	N	N	N	C				Y	
HWAAP15	I-02	VOCs	0	N	N	N	N	C				Y	
HWAAP16	I-02	Explosives	3	N	N	N	N	N/C			Y		
HWAAP16	I-02	Nitrogen	3	N	N	Y	N	N/C		Y			
HWAAP16	I-02	VOCs	3	N	N	Y	N	N/C		Y			
HWAAP17	I-02	Explosives	3	N	N	N	N	N/C			Y		
HWAAP17	I-02	Nitrogen	3	N	N	Y	N	N/C		Y			
HWAAP17	I-02	VOCs	3	N	N	Y	N	N/C		Y			NDEP requested sample interval
HWAAP18	I-02	Explosives	3	N	N	N	N	N/C			Y		
HWAAP18	I-02	Nitrogen	3	N	N	Y	N	N/C		Y			
HWAAP18	I-02	VOCs	3	N	N	Y	N	N/C		Y			
IRPMW49	I-09/I-10	Explosives	16	N	N	Y	Y	C				Y	
IRPMW49	I-09/I-10	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW49	I-09/I-10	VOCs	19	N	N	Y	Y	N/C		Y			
IRPMW50	I-09/I-10	Explosives	16	N	N	Y	Y	C				Y	
IRPMW50	I-09/I-10	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW50	I-09/I-10	VOCs	21	N	Y	N/A	Y	N/C	Y				
IRPMW50A	I-09/I-10	Explosives	4	N	N	N	N	C				Y	
IRPMW50A	I-09/I-10	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW50A	I-09/I-10	VOCs	4	N	Y	N/A	N	N/C	Y				
IRPMW50B	I-09/I-10	Explosives	4	N	N	N	N	C				Y	
IRPMW50B	I-09/I-10	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW50B	I-09/I-10	VOCs	4	N	Y	N/A	N	N/C	Y				
IRPMW51	I-09/I-10	Explosives	4	N	N	N	N	C				Y	
IRPMW51	I-09/I-10	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW51	I-09/I-10	VOCs	5	N	N	Y	Y	N/C		Y			
IRPMW52	I-09/I-10	Explosives	4	N	N	N	N	C				Y	
IRPMW52	I-09/I-10	Nitrogen	4	N	N	Y	N	N/C		Y			
IRPMW52	I-09/I-10	VOCs	5	N	N	Y	Y	N/C		Y			

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
(PAGE 6 OF 7)

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
BLDG70MW01	J-03	Explosives	16	N	N	N	Y	N/C				Y	
BLDG70MW01	J-03	Nitrogen	9	N	N	Y	Y	C				Y	
BLDG70MW01	J-03	VOCs	20	N	N	Y	Y	N/C		Y			
IRPMW42	J-12/H-04	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW42	J-12/H-04	Nitrogen	8	N	Y	N/A	Y	N/C	Y				
IRPMW42	J-12/H-04	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW43	J-12/H-04	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW43	J-12/H-04	Nitrogen	8	N	Y	N/A	Y	N/C	Y				
IRPMW43	J-12/H-04	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW44	J-12/H-04	Explosives	16	N	N	Y	Y	C				Y	
IRPMW44	J-12/H-04	Nitrogen	9	N	Y	N/A	Y	N/C	Y				
IRPMW44	J-12/H-04	VOCs	17	N	N	Y	Y	N/C		Y			
IRPMW45	J-12/H-04	Explosives	16	N	N	Y	Y	C				Y	
IRPMW45	J-12/H-04	Nitrogen	9	N	Y	N/A	Y	N/C	Y				
IRPMW45	J-12/H-04	VOCs	18	N	N	Y	Y	N/C		Y			
IRPMW46	J-12/H-04	Explosives	16	N	N	Y	Y	C				Y	
IRPMW46	J-12/H-04	Nitrogen	8	N	Y	N/A	Y	N/C	Y				
IRPMW46	J-12/H-04	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW47	J-12/H-04	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW47	J-12/H-04	Nitrogen	9	N	Y	N/A	Y	N/C	Y				
IRPMW47	J-12/H-04	VOCs	16	N	N	Y	Y	N/C		Y			
IRPMW48	J-12/H-04	Explosives	16	N	N	Y	Y	C				Y	
IRPMW48	J-12/H-04	Nitrogen	8	N	N	Y	Y	N/C		Y			
IRPMW48	J-12/H-04	VOCs	16	N	N	Y	Y	N/C		Y			
HWAAP02	Old Bomb	Explosives	6	N	N	Y	Y	N/C		Y			
HWAAP02	Old Bomb	Nitrogen	4	N	N	Y	N	N/C		Y			
HWAAP02	Old Bomb	VOCs	5	N	N	Y	Y	N/C		Y			
HWAAP02	Old Bomb	Pesticides	1	N	N	N	N	N/C		Y			Pesticides added due to site history
HWAAP09	Old Bomb	Explosives	5	N	N	Y	Y	N/C		Y			
HWAAP09	Old Bomb	Nitrogen	4	N	N	Y	N	N/C		Y			
HWAAP09	Old Bomb	VOCs	5	N	N	N	Y	N/C		Y			
HWAAP10	Old Bomb	Explosives	5	N	N	N	Y	C		Y			
HWAAP10	Old Bomb	Nitrogen	4	N	N	Y	N	C		Y			
HWAAP10	Old Bomb	VOCs	5	N	N	N	Y	C		Y			
IRPMW40	PERIMETER	Explosives	4	N	N	N	N	C				Y	
IRPMW40	PERIMETER	Nitrogen	5	N	N	Y	Y	N/C			Y		NDEP requested sample interval
IRPMW40	PERIMETER	VOCs	5	N	N	Y	Y	N/C			Y		NDEP requested sample interval

**TABLE 3**  
**2005 BASEWIDE GROUNDWATER MONITORING PROGRAM CRITERIA DATA**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 7 OF 7)**

Well	SWMU Area	Method	Times Sampled	Well Destroyed or Abandoned	Were COCs detected above ALs in greater than 30% of the sampling events?	Were COCs detected above ALs in less than 30% of the sampling events or detected, but no action level established?	Has the well been sampled 5 times?	Professional Judgment	Sample Annually	Sample every 2 years	Sample every 4 years	Suspend Sampling	NOTES
IRPMW41	PERIMETER	Explosives	4	N	N	N	N	C				Y	
IRPMW41	PERIMETER	Nitrogen	5	N	N	Y	Y	N/C			Y		NDEP requested sample interval
IRPMW41	PERIMETER	VOCs	5	N	N	Y	Y	N/C			Y		NDEP requested sample interval
IRPMW14	WWTPs	Explosives	13	N	N	N	Y	N/C				Y	
IRPMW14	WWTPs	Nitrogen	12	N	Y	N/A	Y	N/C	Y				
IRPMW14	WWTPs	VOCs	18	N	N	Y	Y	N/C	Y				
IRPMW15	WWTPs	Explosives	13	N	N	N	Y	N/C				Y	
IRPMW15	WWTPs	Nitrogen	13	N	Y	N/A	Y	C	Y				
IRPMW15	WWTPs	VOCs	18	N	N	Y	Y	C	Y				
IRPMW16	WWTPs	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW16	WWTPs	Nitrogen	12	N	Y	N/A	Y	N/C	Y				
IRPMW16	WWTPs	VOCs	21	N	N	Y	Y	N/C		Y			
IRPMW17	WWTPs	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW17	WWTPs	Nitrogen	13	N	Y	N/A	Y	C	Y				
IRPMW17	WWTPs	VOCs	21	N	N	Y	Y	C		Y			
IRPMW18	WWTPs	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW18	WWTPs	Nitrogen	12	N	Y	N/A	Y	N/C	Y				
IRPMW18	WWTPs	VOCs	21	N	N	Y	Y	N/C		Y			
IRPMW19	WWTPs	Explosives	16	N	N	N	Y	N/C				Y	
IRPMW19	WWTPs	Nitrogen	13	N	Y	N/A	Y	C	Y				
IRPMW19	WWTPs	VOCs	21	N	N	Y	Y	C		Y			
IRPMW20	WWTPs	Explosives	13	N	N	N	Y	N/C				Y	
IRPMW20	WWTPs	Nitrogen	12	N	Y	N/A	Y	N/C	Y				
IRPMW20	WWTPs	VOCs	18	N	N	Y	Y	N/C	Y				
IRPMW21	WWTPs	Explosives	5	N	N	N	Y	N/C				Y	
IRPMW21	WWTPs	Nitrogen	9	N	Y	N/A	Y	C	Y				
IRPMW21	WWTPs	VOCs	9	N	N	Y	Y	C	Y				

Notes:

\* = Perimeter well  
AL = Action level  
C = Change  
COC = Chemical of concern  
N = No  
N/A = Not analyzed

N/C = No change  
SWMU = Solid waste management unit  
VOC = Volatile Organic Compound  
WWTP = Wastewater Treatment Plant  
Y = Yes

TABLE 4

2005 AND HISTORICAL GROUNDWATER ELEVATIONS  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
 (PAGE 1 OF 3)

Well ID	Northing	Easting	TOC Elevation (ft above msl) (1)	Measured Well Depth (ft below TOC) (2)	Depth to Bottom of Screen (ft below TOC) (1)	Depth to Top of Screen (ft below TOC) (1)	DEPTH TO WATER AND GROUNDWATER ELEVATIONS									
							November 2002		February 2003		May 2003		August 2003		December 2005	
							DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)
BLDG70MW01	1387112.90	491943.30	4161.95	130.30	130.09	100.09	nm	nm	nm	nm	104.06	4,057.89	nm	nm	104.15	4,057.80
DZB101-13MW4	1390225.10	498623.50	4193.78	120.40	110.42	95.4	nm	nm	nm	nm	nm	nm	nm	nm	98.30	4,095.48
DZB101-13MW5	1390178.90	498602.50	4194.35	117.50	110.42	95.4	nm	nm	nm	nm	nm	nm	nm	nm	98.28	4,096.07
DZB101-13MW8	1389763.64	499976.67	4210.27	138.70	104.03	84.0	nm	nm	nm	nm	nm	nm	nm	nm	111.64	4,098.63
DZB101-13MW6/7	1389928.10	498537.50	4194.78	127.85 <sup>3</sup>	110.62	95.6	nm	nm	nm	nm	nm	nm	nm	nm	98.50	4,096.28
DZB101-44MW1	1387434.91	502259.68	4254.35	157.40	151.44	136.44	141.93	4,112.42	nm	nm	141.56	4,112.79	nm	nm	141.60	4,112.75
DZB101-44MW2	1387366.49	502232.38	4253.59	158.00	152.72	137.72	141.30	4,112.29	nm	nm	140.96	4,112.63	nm	nm	141.04	4,112.55
DZB101-44MW3	1387197.96	502763.86	4258.80	158.75	147.25	127.25	nm	nm	nm	nm	145.29	4,113.51	nm	nm	145.56	4,113.24
AP02	1336369.60	510896.40	5028.63	200.49	190.56	180.56	nm	nm	nm	nm	170.36	4,858.27	nm	nm	Dry	na
AP09	1339182.10	511539.50	4977.00	178.00	175.86	165.86	nm	nm	nm	nm	nm	nm	nm	nm	106.06	4,870.94
WAAP10	1341569.80	512264.90	4900.70	109.90	101.24	91.24	nm	nm	nm	nm	nm	nm	nm	nm	66.82	4,833.88
HWAAP15	1398414.10	503653.50	na	157.00	160.00	150.00	nm	nm	nm	nm	nm	nm	nm	nm	127.16	na
HWAAP16	1398285.70	502376.80	4216.27	121.68	99.24	89.24	nm	nm	nm	nm	nm	nm	nm	nm	107.99	4,108.28
HWAAP17	1397833.70	502653.60	4212.32	128.10	125.80	115.80	nm	nm	nm	nm	nm	nm	nm	nm	102.44	4,109.88
HWAAP18	1397977.00	502327.80	4210.62	110.58	120.84	110.84	nm	nm	nm	nm	nm	nm	nm	nm	102.01	4,108.61
IRPMW01	1396738.50	477575.80	4013.72	64.14	119.90	114.90	nm	nm	nm	nm	nm	nm	nm	nm	2.19	4,011.53
IRPMW02	1396749.40	477602.60	4013.68	32.74	31.50	21.50	25.65	3,988.03	nm	nm	25.57	3,988.11	nm	nm	26.13	3,987.55
IRPMW03	1396119.10	476435.70	4007.38	NA	76.36	71.36	nm	nm	nm	nm	nm	nm	nm	nm	na	na
IRPMW04	1396100.10	476414.80	4007.06	28.64	28.12	18.12	nm	nm	nm	nm	nm	nm	nm	nm	20.68	3,986.38
IRPMW05	1396653.40	478583.10	4021.61	76.68	76.20	71.20	8.52	4,013.09	nm	nm	8.51	4,013.10	nm	nm	9.24	4,012.37
IRPMW06	1396668.30	478565.60	4021.79	33.44	32.94	22.94	nm	nm	nm	nm	nm	nm	nm	nm	28.76	3,993.03
IRPMW07	1395881.10	478636.20	4022.51	82.70	82.27	77.27	nm	nm	nm	nm	nm	nm	nm	nm	9.09	4,013.42
IRPMW08A	1395896.40	478628.30	4022.97	34.82	33.77	18.77	nm	nm	nm	nm	nm	nm	nm	nm	27.93	3,995.04
IRPMW09	1394807.60	478889.10	4025.16	81.19	80.75	75.75	9.32	4,015.84	nm	nm	9.30	4,015.86	nm	nm	10.04	4,015.12
IRPMW10	1394788.90	478863.10	4025.43	32.68	33.07	23.07	nm	nm	nm	nm	nm	nm	nm	nm	27.96	3,997.47
IRPMW11	1388890.70	472946.20	4128.89	111.98	111.15	101.15	nm	nm	nm	nm	nm	nm	nm	nm	106.28	4,022.61
IRPMW12	1389407.0	473698.10	4094.39	77.03	76.03	66.03	nm	nm	nm	nm	nm	nm	nm	nm	71.86	4,022.53
IRPMW13	1386814.10	475092.60	4139.05	120.05	118.98	108.98	nm	nm	nm	nm	nm	nm	nm	nm	113.26	4,025.79
IRPMW14	1389340.60	477825.90	4072.04	95.50	95.00	90.00	nm	nm	nm	nm	48.28	4,023.76	nm	nm	49.13	4,022.91
IRPMW15	1389321.00	477832.70	4073.00	57.65	56.63	46.63	nm	nm	nm	nm	50.44	4,022.56	nm	nm	51.12	4,021.88
IRPMW16	1390637.50	482009.60	4073.84	92.45	91.91	86.91	nm	nm	nm	nm	49.53	4,024.31	nm	nm	50.27	4,023.57
IRPMW17	1390633.80	481989.80	4074.26	57.47	56.95	46.95	nm	nm	nm	nm	50.36	4,023.90	nm	nm	51.05	4,023.21
IRPMW18	1389678.20	483504.70	4093.77	109.60	109.17	104.17	nm	nm	nm	nm	67.50	4,026.27	nm	nm	68.37	4,025.40
IRPMW19	1389693.20	483492.30	4092.79	70.19	69.70	59.70	nm	nm	nm	nm	65.10	4,027.69	nm	nm	65.77	4,027.02
IRPMW20	1387331.90	478491.20	4098.21	118.25	119.15	114.15	nm	nm	nm	nm	70.64	4,027.57	nm	nm	71.52	4,026.69
IRPMW21	1387354.70	478496.50	4097.80	76.25	76.44	66.44	nm	nm	nm	nm	nm	nm	nm	nm	71.76	4,026.04

TABLE 4

2005 AND HISTORICAL GROUNDWATER ELEVATIONS  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
 (PAGE 2 OF 3)

Well ID	Northing	Easting	TOC Elevation (ft above msl) (1)	Measured Well Depth (ft below TOC) (2)	Depth to Bottom of Screen (ft below TOC) (1)	Depth to Top of Screen (ft below TOC) (1)	DEPTH TO WATER AND GROUNDWATER ELEVATIONS									
							November 2002		February 2003		May 2003		August 2003		December 2005	
							DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)
IRPMW22	1394096.10	490253.80	4116.32	148.10	147.45	142.45	nm	nm	nm	nm	nm	nm	nm	nm	65.95	4,050.37
IRPMW23	1394081.40	490268.70	4116.76	86.60	85.55	75.55	nm	nm	nm	nm	nm	nm	nm	nm	80.97	4,035.79
IRPMW24	1390190.20	489584.00	4130.68	155.60	154.58	149.58	nm	nm	nm	nm	nm	nm	nm	nm	80.19	4,050.49
IRPMW25	1390203.10	489568.70	4130.88	117.35	116.60	111.60	nm	nm	nm	nm	nm	nm	nm	nm	80.40	4,050.48
IRPMW26	1389353.50	487041.10	4115.90	143.20	142.42	137.42	nm	nm	nm	nm	nm	nm	nm	nm	86.30	4,029.60
IRPMW27	1389370.50	487024.60	4115.57	94.87	94.11	84.11	nm	nm	nm	nm	nm	nm	nm	nm	87.61	4,027.96
IRPMW28	1390863.80	489521.40	4124.00	111.29	110.53	105.53	nm	nm	nm	nm	nm	nm	nm	nm	73.02	4,050.98
IRPMW29	1390479.30	490294.00	4131.62	101.84	101.37	91.37	nm	nm	nm	nm	nm	nm	nm	nm	94.27	4,037.35
IRPMW30	1390854.20	496270.90	4178.97	168.53	167.62	162.62	nm	nm	nm	nm	nm	nm	nm	nm	84.97	4,094.00
IRPMW31	1390862.80	496291.90	4178.45	90.45	89.91	79.91	nm	nm	nm	nm	nm	nm	nm	nm	86.12	4,092.35
IRPMW32	1390150.20	496024.30	4182.94	178.30	177.39	172.39	nm	nm	nm	nm	nm	nm	nm	nm	86.12	4,092.35
IRPMW33	1390140.30	496046.10	4183.23	98.93	97.38	87.38	nm	nm	nm	nm	89.82	4,093.12	nm	nm	90.15	4,092.79
IRPMW34	1388675.10	497435.40	4194.47	143.80	140.63	135.63	100.93	4,093.54	nm	nm	90.38	4,092.85	nm	nm	90.83	4,092.40
IRPMW35	1388680.40	497454.00	4194.77	106.07	106.00	96.00	nm	nm	nm	nm	100.74	4,093.73	nm	nm	101.13	4,093.34
IRPMW36	1388158.70	499965.10	4236.93	193.96	194.21	189.21	135.61	4,101.32	nm	nm	100.84	4,093.93	nm	nm	101.29	4,093.48
IRPMW37	1388187.00	499981.80	4237.34	140.90	140.40	130.40	nm	nm	nm	nm	135.34	4,101.59	nm	nm	135.60	4,101.33
IRPMW37A	1388339.70	499608.80	4226.31	153.15	152.88	137.88	129.06	4,097.25	128.22	4,098.09	134.26	4,103.08	nm	nm	134.56	4,102.78
IRPMW38	1385582.40	507488.00	4309.88	238.70	237.93	232.93	nm	nm	nm	nm	128.58	4,097.73	128.65	4,097.66	128.85	4,097.46
IRPMW39	1385609.20	507485.30	4309.51	191.74	191.04	181.04	nm	nm	nm	nm	nm	nm	nm	nm	185.44	4,124.44
IRPMW40	1384539.60	486191.50	4153.65	158.40	155.95	150.95	nm	nm	nm	nm	nm	nm	nm	nm	85.04	4,224.47
IRPMW41	1384530.90	486171.10	4153.99	124.30	123.68	113.68	nm	nm	nm	nm	nm	nm	nm	nm	118.37	4,035.28
IRPMW42	1385691.70	480209.00	4130.96	111.01	110.23	100.23	nm	nm	nm	nm	nm	nm	nm	nm	118.50	4,035.49
IRPMW43	1385213.90	480731.30	4126.68	107.06	106.18	96.18	nm	nm	nm	nm	nm	nm	nm	nm	103.08	4,027.88
IRPMW44	1384857.40	480029.70	4126.77	102.88	102.19	92.19	nm	nm	nm	nm	nm	nm	nm	nm	98.63	4,028.05
IRPMW45	1383697.70	480544.20	4140.06	116.80	116.15	106.15	nm	nm	nm	nm	nm	nm	nm	nm	98.53	4,028.24
IRPMW46	1383881.90	481025.20	4139.45	116.16	115.55	105.55	nm	nm	nm	nm	110.44	4,029.62	nm	nm	111.47	4,028.59
IRPMW47	1384082.90	481567.10	4139.34	116.41	115.85	105.85	nm	nm	nm	nm	nm	nm	nm	nm	110.96	4,028.49
IRPMW48	1383500.70	481184.90	4145.68	122.85	122.23	112.23	nm	nm	nm	nm	nm	nm	nm	nm	111.11	4,028.23
IRPMW49	1378815.80	492951.00	4257.01	238.70	237.71	232.71	181.51	4,075.50	nm	nm	nm	nm	nm	nm	117.19	4,028.49
IRPMW50	1378835.80	492954.20	4256.60	186.26	185.72	175.72	nm	nm	nm	nm	181.04	4,075.97	nm	nm	181.18	4,075.83
IRPMW50A	1378420.20	493118.60	4261.45	194.45	198.18	183.18	186.07	4,075.38	185.36	4,076.09	180.73	4,075.87	nm	nm	180.85	4,075.75
IRPMW50B	1379204.90	492770.00	4251.76	197.55	197.23	182.23	176.59	4,075.17	175.95	4,075.81	185.73	4,075.72	185.5	4,075.95	185.75	4,075.70
IRPMW51	1377577.50	492896.40	4278.13	249.03	248.70	243.70	nm	nm	nm	nm	176.25	4,075.51	176.25	4,075.51	176.29	4,075.91
IRPMW52	1377556.50	492893.20	4278.04	209.00	208.31	198.31	nm	nm	nm	nm	nm	nm	nm	nm	202.22	4,075.91
IRPMW56	1387170.80	502815.30	4260.01	182.10	181.16	141.16	146.95	4,113.06	146.15	4,113.86	146.69	4,113.32	146.53	4,113.48	146.83	4,113.18
USGS103-41MW01	1396799.78	471271.89	3977.10	15.40	17.00	7.00	nm	nm	nm	nm	nm	nm	nm	nm	11.10	3,966.00

TABLE 4

2005 AND HISTORICAL GROUNDWATER ELEVATIONS  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
 (PAGE 3 OF 3)

Well ID	Northing	Easting	TOC Elevation (ft above msl) (1)	Measured Well Depth (ft below TOC) (2)	Depth to Bottom of Screen (ft below TOC) (1)	Depth to Top of Screen (ft below TOC) (1)	DEPTH TO WATER AND GROUNDWATER ELEVATIONS									
							November 2002		February 2003		May 2003		August 2003		December 2005	
							DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)	DTW (ft below TOC)	Groundwater Elevation (ft above msl)
USGS103-41MW04	1397537.90	473135.40	3978.90	22.85	17.00	7.00	nm	nm	nm	nm	nm	nm	nm	nm	11.90	3,967.00
USGS103-41MW07	1398766.52	474042.32	3980.75	31.29	22.50	12.50	nm	nm	nm	nm	nm	nm	nm	nm	15.30	3,965.45
USGS103-41MW12	1395360.40	473015.80	3989.74	29.49	22.50	12.50	nm	nm	nm	nm	nm	nm	nm	nm	13.99	3,975.75
USGS103-41MW16	1396308.60	474794.10	3992.86	32.00	25.50	15.50	nm	nm	nm	nm	nm	nm	nm	nm	16.25	3,976.61
USGS103-41MW18	1397936.40	476016.50	3997.06	27.25	24.50	14.50	nm	nm	nm	nm	nm	nm	nm	nm	19.62	3,977.44
USGS103-41MW20	1398862.10	476376.90	3997.39	28.80	25.00	15.00	nm	nm	nm	nm	nm	nm	nm	nm	18.21	3,979.18
USGS103-41MW21	1399808.70	476723.60	3997.49	26.39	26.00	16.00	nm	nm	nm	nm	nm	nm	nm	nm	19.84	3,977.65
USGS103-41MW23	1394643.20	476156.90	4006.68	31.23	25.00	15.00	nm	nm	nm	nm	nm	nm	nm	nm	17.28	3,989.40
USGS103-41MW25	1395780.60	477146.10	4010.17	27.32	27.00	17.00	nm	nm	nm	nm	nm	nm	nm	nm	20.94	3,989.23

Bold northings and eastings indicate new northings and eastings found by global positioning system or well survey pin located on well pad during the December 2005 well inventory.

Static water levels for 2005 were measured November 29 through December 2.

(1) Northing, Easting, TOC Elevation, Depth to Bottom of Screen, and Depth to Top of Screen comes from Tetra Tech, Inc. (2002). Frontier Surveying, Inc. provided northing, easting, and TOC elevation for wells IRPMW37A, IRPMW50A, IRPMW50B, and IRPMW56.

(2) Total well depths were measured during the December 2005 well inventory.

(3) Total depth from well DZB101-13MW6/7 comes from Tetra Tech, Inc. (2002). A packer is installed in this well.

DTW = Depth to water

ft = Feet

msl = mean sea level

na = Not available

nm = Not measured

TOC = Top of casing

**TABLE 5**  
**SUMMARY OF COMPOUNDS DETECTED AND FIELD PARAMETERS COLLECTED FROM GROUNDWATER MONITORING DECEMBER 2005**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 1 OF 3)**

Analyte			1,2-DICHLOROETHANE	BROMODICHLOROMETHANE	CARBON TETRACHLORIDE	CHLOROFORM	CIS-1,2-DICHLOROETHENE	DIBROMOCHLOROMETHANE	TETRACHLOROETHENE (PCE)	TRICHLOROETHENE (TCE)	AMMONIUM AS N	NITRATE AS N	NITRITE AS N	2,4,6-TRINITROTOLUENE	2,4-DINITROTOLUENE	2-AMINO-4,6-DINITROTOLUENE	4-AMINO-2,6-DINITROTOLUENE	RDX	TOTAL KJELDAHL NITROGEN	pH (Field)	TEMPERATURE (Field)	SPECIFIC CONDUCTANCE (Field)	TURBIDITY (Field)	DISSOLVED OXYGEN (Field)		
MDL			0.063	0.042	0.07	0.04	0.056	0.047	0.066	0.08	0.065	0.02	0.007	0.21	0.21	0.18	0.06	0.25	0.093	na	na	na	na	na		
PQL			2	2	2	2	2	2	2	2	0.3	0.04	0.05	1	1	0.18	0.06	0.25	0.2	na	na	na	na	na		
Action Level			5 <sup>1</sup>	0.18 <sup>2</sup>	5 <sup>1</sup>	0.17 <sup>2</sup>	70 <sup>1</sup>	0.13 <sup>2</sup>	5 <sup>1</sup>	5 <sup>1</sup>	NE	10 <sup>1</sup>	1.0 <sup>1</sup>	2.2 <sup>2</sup>	73 <sup>2</sup>	0.099 <sup>3</sup>	0.099 <sup>3</sup>	0.61 <sup>2</sup>	NE	na	na	na	na	na		
Sample ID	Sample Type	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	Unit	Celsius	µmhos/cm	NTU	mg/L		
IRPMW01-112905-W	Normal	11/29/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.2 U,b	2.6	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.39 U,b	8.21	14.8	1440	<2	0.00		
IRPMW02-112905-W	Normal	11/29/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.15 U,b	59.7	1.3 U	9.8	2.4	3.2	15.6	0.25 U	0.36 U,b	7.39	16.6	5290	55.7	0.00		
IRPMW04-112905-W	Normal	11/29/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 J,g	0.3 J,g	0.19 U,b	0.46	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.38 U,b	8.33	16.9	1820	<2	1.16	
IRPMW05-112905-W	Normal	11/29/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 J,g	1 J,g	0.13 U,b	1.0	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.29 U,b	8.13	16.5	1440	<2	0.37	
IRPMW05-112905-WER	Equipment Rinsate	11/29/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.12 J,g	0.026 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.25 U	0.34 U,b	7.50	15.1	3950	<2	2.55	
IRPMW06-113005-W	Normal	11/30/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.11 U,b	0.20 J,g	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.25 U	0.34 U,b	8.20	16.00	1450	<2	0.00	
IRPMW07-120205-W	Normal	12/2/2005	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.078 U,b	na	na	1 U	1 U	0.18 U	0.06 U	0.25 U	0.22 U,b	8.03	15.93	1460	<2	0.28		
IRPMW07-121305-W	Resample of Normal	12/13/05	--	--	--	--	--	--	--	--	--	3.3	0.13 U	--	--	--	--	--	--	8.03	15.93	1460	<2	0.28		
IRPMW07-113005-WER	Equipment Rinsate	11/30/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.48	0.029 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.73	na	na	na	na	na		
IRPMW8A-120205-W	Normal	12/2/2005	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.55 U,b	na	na	1 U	1 U	0.18 U	0.06 U	0.25 U	0.85 U,b	7.68	16.20	3740	<2	0.00		
IRPMW8A-121305-W	Resample of Normal	12/13/05	--	--	--	--	--	--	--	--	--	0.14 J,g	0.2 U	--	--	--	--	--	--	7.40	14.77	3720	151.0	0.24		
IRPMW09-113005-W	Normal	11/30/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.098 U,b	4.0	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.29 U,b	8.09	16.2	1470	<2	0.00		
IRPMW11-120605-W	Normal	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.51	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	8.32	23.4	1400	3.4	6.27		
IRPMW11-120505-WER	Equipment Rinsate	12/05/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.20 J,g	0.026 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.44	na	na	na	na	na		
IRPMW12A-120605-W	Normal	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.30	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	8.22	27.7	955	<2	3.28		
IRPMW12B-120605-W	Duplicate	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.30	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	8.22	27.7	955	<2	3.28		
IRPMW13-120605-W	Normal	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.094 J,g	0.49	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.13 U,b	8.45	28.4	1330	<2	2.42		
IRPMW14A-120105-W	Normal	12/01/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.6 J,g	2 U	0.3 U	na	na	1 U	1 U	0.18 U	0.06 U	0.25 U	0.14 U,b	8.17	22.7	1270	44.7	0.00	
IRPMW14B-120105-W	Duplicate	12/01/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.6 J,g	2 U	0.3 U	na	na	1 U	1 U	0.18 U	0.06 U	0.25 U	0.14 U,b	8.17	22.7	1270	44.7	0.00	
IRPMW14A-121305-W	Resample of Normal	12/13/05	--	--	--	--	--	--	--	--	--	4.7	0.13 U	--	--	--	--	--	--	8.07	19.85	895	<2	2.76		
IRPMW14B-121305-W	Resample Duplicate	12/13/05	--	--	--	--	--	--	--	--	--	4.8	0.1 U	--	--	--	--	--	--	8.07	19.85	895	<2	2.76		
IRPMW15-120205-W	Normal	12/02/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.6 J,g	2 U	0.3 U	na	na	1 U	1 U	0.18 U	0.06 U	0.25 U	0.19 U,b	7.33	20.5	1300	<2	0.00
IRPMW15-120105-WER	Equipment Rinsate	12/01/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.60	0.028 J,g,h	0.05 U,h	1 U	1 U	0.18 U	0.06 U	0.25 U	0.87	na	na	na	na	na		
IRPMW15-121305-W	Resample of Normal	12/13/05	--	--	--	--	--	--	--	--	--	13.5	0.25 U	--	--	--	--	--	--	7.10	19.45	872	<2	0.35		
IRPMW16-120505-W	Normal	12/05/05	2 U	2 U	2 U	2 U	0.7 J,g	2 U	2	2	0.17 U,b	2.7	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.4 U,b	7.58	18.9	1450	<2	0.00		
IRPMW16-120205-WER	Equipment Rinsate	12/02/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.13 J,g	0.027 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.31	na	na	na	na	na		
IRPMW17-120205-W	Normal	12/02/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	1 J,g	0.5 J,g	0.3 U	8.9	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.23 U,b	7.26	20.1	1400	<2	2.46	
IRPMW18-120505-W	Normal	12/05/05	2 U	2 U	2 U	2 U	0.4 J,g	2 U	0.5 J,g	0.6 J,g	0.078 U,b	3.3	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.29 U,b	7.40	14.1	1420	<2	0.00		
IRPMW19-120505-W	Normal	12/05/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.64 U,b	10.4	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	1.3 U,b	7.04	14.3	1220	<2	0.14		
IRPMW20-121405-W	Normal	12/14/05	2 U	2 U	2 U	0.8 J,g	2 U	2 U	0.6 J,g	2 U	0.3 U	5.1	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.11 J,g	7.73	24.26	1480	<2	1.40		
IRPMW20-121405-WER	Equipment Rinsate	12/14/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.027 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	na	na	na	na	na		
IRPMW21A-121405-W	Normal	12/14/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	14.0	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.15 J,g	7.12	22.32	911	6.9	0.00		
IRPMW21B-121405-W	Duplicate	12/14/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	14.3	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.17 J,g	7.12	22.32	911	6.9	0.00		
IRPMW22-120805-W	Normal	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.088 J,g	0.20	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.21 U,b	7.65	15.3	970	<2	0.00		
IRPMW22-120805-WER	Equipment Rinsate	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.030 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.11 J,g	na	na	na	na	na		
IRPMW23-120805-W	Normal	12/08/05	2 U	2 U	2 U	0.4 J,g	2 U	2 U	2 U	2 U	0.39	5.6	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.76	7.90	15.8	724	2.4	7.71		
IRPMW24-120705-WER	Equipment Rinsate	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.17 J,g	0.072 J,g	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.22	na	na	na	na	na		

**TABLE 5**  
**SUMMARY OF COMPOUNDS DETECTED AND FIELD PARAMETERS COLLECTED FROM GROUNDWATER MONITORING DECEMBER 2005**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 2 OF 3)**

Analyte			1,2-DICHLOROETHANE	BROMODICHLOROMETHANE	CARBON TETRACHLORIDE	CHLOROFORM	CIS-1,2-DICHLOROETHENE	DIBROMOCHLOROMETHANE	TETRACHLOROETHENE (PCE)	TRICHLOROETHENE (TCE)	AMMONIUM AS N	NITRATE AS N	NITRITE AS N	2,4,6-TRINITROTOLUENE	2,4-DINITROTOLUENE	2-AMINO-4,6-DINITROTOLUENE	4-AMINO-2,6-DINITROTOLUENE	RDX	TOTAL KJELDAHL NITROGEN	pH (Field)	TEMPERATURE (Field)	SPECIFIC CONDUCTANCE (Field)	TURBIDITY (Field)	DISSOLVED OXYGEN (Field)	
MDL			0.063	0.042	0.07	0.04	0.056	0.047	0.066	0.08	0.065	0.02	0.007	0.21	0.21	0.18	0.06	0.25	0.093	na	na	na	na	na	
PQL			2	2	2	2	2	2	2	2	0.3	0.04	0.05	1	1	0.18	0.06	0.25	0.2	na	na	na	na	na	
Action Level			5 <sup>1</sup>	0.18 <sup>2</sup>	5 <sup>1</sup>	0.17 <sup>2</sup>	70 <sup>1</sup>	0.13 <sup>2</sup>	5 <sup>1</sup>	5 <sup>1</sup>	NE	10 <sup>1</sup>	1.0 <sup>1</sup>	2.2 <sup>2</sup>	73 <sup>2</sup>	0.099 <sup>3</sup>	0.099 <sup>3</sup>	0.61 <sup>2</sup>	NE	na	na	na	na	na	
Sample ID	Sample Type	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	Unit	Celsius	µmhos/cm	NTU	mg/L	
IRPMW26-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.088 U,b	0.60	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.34 U,b	7.84	12.4	1320	<2	4.39	
IRPMW27-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	1.0	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.11 U,b	7.83	17.8	1290	<2	4.55	
IRPMW29-120805-W	Normal	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.31	0.28	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.59	7.74	16.3	1460	<2	7.61	
IRPMW30-120505-W	Normal	12/05/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.068 U,b	0.16 J,g	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.24 U,b	8.32	17.5	1520	<2	0.52	
IRPMW31-120505-W	Normal	12/05/05	2 U	2 U	0.6 J,g	1 J,g	2 U	2 U	2 U	2 U	0.3 U	1.8	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.19 U,b	8.04	19.0	1580	3.8	6.90	
IRPMW32-120505-WER	Equipment Rinsate	12/05/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.098 J,g	0.027 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.32	na	na	na	na	na	
IRPMW33-120605-W	Normal	12/06/05	2 U	2 U	2 U	1 J,g	2 U	2 U	2 U	0.4 J,g	0.21 J,g	2.1	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.67 U,b	8.10	16.9	1510	<2	na	
IRPMW34-120605-W	Normal	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.11 J,g	0.79	0.5 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.19 U,b	8.04	21.2	1560	<2	5.1	
IRPMW35-120605-W	Normal	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.068 J,g	1.8	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U,b	8.11	21.6	1560	<2	7.15	
IRPMW36-120605-W	Normal	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.18 J,g	0.21	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.37 U,b	8.77	22.4	1450	<2	1.55	
IRPMW36-120605-WER	Equipment Rinsate	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.027 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.16 J,g	na	na	na	na	na	
IRPMW37-120805-W	Normal	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	6.6	0.60	0.18	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	1.1	8.64	21.1	1540	<2	5.65
IRPMW37A-121205-W	Normal	12/12/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.098 U,b	0.19	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	2.4	8.43	16.0	1300	<2	3.99	
IRPMW38-120805-W	Normal	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.87	0.17	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	1.8	7.95	17.6	1800	<2	5.10	
IRPMW39-120805-W	Normal	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.67	0.17	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.97	8.24	19.35	1830	4.1	6.75	
IRPMW40A-120905-W	Normal	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.86	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.96 U,b	7.95	17.9	1390	<2	3.53	
IRPMW40B-120905-W	Duplicate	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.23 J,g	0.86	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.98 U,b	7.95	17.9	1390	<2	3.53	
IRPMW41-120905-W	Normal	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.94	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.15 U,b	8.04	13.0	1360	<2	6.7	
IRPMW42-121405-W	Normal	12/14/05	2 U	0.3 J,g	2 U	4.6	2 U	2 U	2 U	2 U	0.3 U	1.8	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.46	7.97	22.23	955	<2	5.34	
IRPMW43-121405-W	Normal	12/14/05	2 U	2 U	0.5 J,g	3	2 U	2 U	2 U	2 U	0.3 U	2.5	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.66	8.03	21.87	940	<2	7.21	
IRPMW44-121305-W	Normal	12/13/05	2 U	0.5 J,g	2 U	4	2 U	2 U	2 U	2 U	0.3 U	2.8	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	7.68	20.74	1750	83.7	2.79	
IRPMW44-121305-WER	Equipment Rinsate	12/13/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.078 J+,c,g	0.04 U	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.41	na	na	na	na	na	
IRPMW45-120905-W	Normal	12/09/05	2 U	2 U	2 U	2	2 U	0.3 J,g	2 U	2 U	0.15 J,g	1.3	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.96 U,b	7.79	22.9	1580	<2	6.38	
IRPMW46-120905-W	Normal	12/09/05	2 U	2 U	2 U	3	2 U	2 U	2 U	2 U	0.35	1.4	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.51 U,b	8.21	19.6	1440	<2	7.35	
IRPMW46-120905-WER	Equipment Rinsate	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.04 U	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.32	na	na	na	na	na	
IRPMW47-120905-W	Normal	12/09/05	2 U	0.3 J,g	2 U	3	2 U	2 U	2 U	2 U	0.3 U	1.4	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	8.16	17.1	1270	<2	7.31	
IRPMW48-120605-W	Normal	12/06/05	2 U	0.3 J,g	2 U	3	2 U	2 U	2 U	2 U	0.3 U	1.5	0.25 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.23 U,b	8.24	21.1	1230	<2	7.93	
IRPMW48-120605-WER	Equipment Rinsate	12/06/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.030 J,g	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.19 J,g	na	na	na	na	na	
IRPMW49-120905-W	Normal	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.14	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.11 U,b	7.75	16.9	1530	4.0	5.0	
IRPMW50-120905-W	Normal	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	11	0.088 U,b	0.38	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.21 U,b	7.88	18.15	1580	<2	7.25	
IRPMW50A-120905-W	Normal	12/09/05	2	2 U	2 U	1 J,g	2 U	2 U	0.4 J,g	232	0.14 U,b	3.0	0.8 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U,b	7.37	19.25	3090	110	6.75	
IRPMW50B-121505-W	Normal	12/15/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	5.1	0.55 J+,c	0.20	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	1.0 U,b	7.83	18.30	1520	213.0	na	
IRPMW50B-121505-WER	Equipment Rinsate	12/15/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	0.026 J,g	0.018 J,g	1 U	1 U	0.18 U	0.06 U	0.25 U	0.23	na	na	na	na	na	
IRPMW51A-120905-W	Normal	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.31 U,b	0.15	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	1.8	7.82	14.8	1520	15.5	5.0	
IRPMW51B-120905-W	Duplicate	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.35 U,b	0.14	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	1.0	7.82	14.8	1520	15.5	5.0	
IRPMW51-120905-WER	Equipment Rinsate	12/09/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.13 J,g	0.04 U	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.17 J,g	na	na	na	na	na	

**TABLE 5**  
**SUMMARY OF COMPOUNDS DETECTED AND FIELD PARAMETERS COLLECTED FROM GROUNDWATER MONITORING DECEMBER 2005**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
**(PAGE 3 OF 3)**

Analyte			1,2-DICHLOROETHANE	BROMODICHLOROMETHANE	CARBON TETRACHLORIDE	CHLOROFORM	CIS-1,2-DICHLOROETHENE	DIBROMOCHLOROMETHANE	TETRACHLOROETHENE (PCE)	TRICHLOROETHENE (TCE)	AMMONIUM AS N	NITRATE AS N	NITRITE AS N	2,4,6-TRINITROTOLUENE	2,4-DINITROTOLUENE	2-AMINO-4,6-DINITROTOLUENE	4-AMINO-2,6-DINITROTOLUENE	RDX	TOTAL KJELDAHL NITROGEN	pH (Field)	TEMPERATURE (Field)	SPECIFIC CONDUCTANCE (Field)	TURBIDITY (Field)	DISSOLVED OXYGEN (Field)
MDL			0.063	0.042	0.07	0.04	0.056	0.047	0.066	0.08	0.065	0.02	0.007	0.21	0.21	0.18	0.06	0.25	0.093	na	na	na	na	na
PQL			2	2	2	2	2	2	2	2	0.3	0.04	0.05	1	1	0.18	0.06	0.25	0.2	na	na	na	na	na
Action Level			5 <sup>1</sup>	0.18 <sup>2</sup>	5 <sup>1</sup>	0.17 <sup>2</sup>	70 <sup>1</sup>	0.13 <sup>2</sup>	5 <sup>1</sup>	5 <sup>1</sup>	NE	10 <sup>1</sup>	1.0 <sup>1</sup>	2.2 <sup>2</sup>	73 <sup>2</sup>	0.099 <sup>3</sup>	0.099 <sup>3</sup>	0.61 <sup>2</sup>	NE	na	na	na	na	na
Sample ID	Sample Type	Sample Date	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	Unit	Celsius	µmhos/cm	NTU	mg/L
IRPMW52-121605-W	Normal	12/16/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.19 U,b	<b>0.20</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.38 U,b	8.29	11.90	1470	40.8	0.00
IRPMW52-121605-WER	Equipment Rinsate	12/16/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	<b>0.17 J,g</b>	<b>0.028 J,g</b>	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	<b>0.36</b>	na	na	na	na	na
IRPMW56-121205-W	Normal	12/12/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	<b>1.6</b>	0.13 U	10 U	10 U	1.8 U	0.6 U	<b>329</b>	0.59 U,b	8.17	21.6	1670	81.5	3.78
BLDG70MW01-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.094 U,b	<b>0.19</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.14 U,b	7.53	18.55	1520	<2	5.2
HWAAP09-120805-WER	Equipment Rinsate	12/08/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	<b>0.032 J,g</b>	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	na	na	na	na	na
HWAAP10-120105-W	Normal	12/1/2005	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.068 U,b	na	na	1 U	1 U	0.18 U	0.06 U	0.25 U	0.19 U,b	8.13	15.2	467	<2	7.20
HWAAP10-120805-W	Resample of Normal	12/08/05	--	--	--	--	--	--	--	--	--	<b>1.4</b>	0.05 U	--	--	--	--	--	--	8.01	13.4	454	3.2	7.20
HWAAP15-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.13 U,b	<b>0.21</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.28 U,b	8.63	17.7	1610	<2	6.0
HWAAP15-120705-WER	Equipment Rinsate	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	<b>0.094 J,g</b>	0.04 U	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	<b>0.11 J,g</b>	na	na	na	na	na
HWAAP16A-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.16 U,b	<b>0.19</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.35 U,b	8.01	18.3	1660	<2	7.05
HWAAP16B-120705-W	Duplicate	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	<b>0.16</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.098 U,b	8.01	18.3	1660	<2	7.05
HWAAP17-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	<b>0.080 J,g</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.23 U,b	9.03	17.15	1620	<2	0.95
HWAAP18-120705-W	Normal	12/07/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	<b>0.15</b>	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.2 U	8.73	17.7	1640	<2	7.5
DZB10113MW8-121205-WER	Equipment Rinsate	12/12/05	2 U	2 U	2 U	<b>0.6 J,g</b>	2 U	2 U	2 U	2 U	<b>0.15 J+,c,g</b>	<b>0.031 J,g</b>	0.05 U	1 U	1 U	0.18 U	0.06 U	0.25 U	<b>0.64</b>	na	na	na	na	na
DZB10144MW1-121505-W	Normal	12/15/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	<b>0.14 J+,c,g</b>	0.12 U,b	0.13 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.49 U,b	8.00	16.17	1680	<2	7.81
DZB10144MW2-121505-W	Normal	12/15/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	<b>0.078 J+,c,g</b>	0.12 U,b	0.13 U,b	1 U	1 U	0.18 U	0.06 U	0.25 U	0.22 U,b	7.98	13.87	1720	9.5	7.87
DZB10144MW3-121505-W	Normal	12/15/05	2 U	2 U	2 U	2 U	2 U	2 U	2 U	<b>0.7 J,g</b>	<b>0.098 J+,c,g</b>	<b>1.8</b>	0.13 U	10 U	10 U	1.8 U	0.6 U	<b>443</b>	0.65 U,b	8.09	19.08	1740	12.8	9.43
USGS10341MW23-113005-W	Normal	11/30/05	2 U	2 U	2 U	2 U	2 U	2 U	<b>0.4 J,g</b>	2 U	0.11 U,b	<b>0.57</b>	0.2 U	1 U	1 U	0.18 U	0.06 U	0.25 U	0.30 U,b	8.66	15.6	1400	<2	1.70

Notes/Footnotes:

Bold values indicate detected concentrations.  
 Bold and shaded values indicate concentrations above the Action Level.  
 < = Less than  
 µg/L = Microgram per liter  
 µmhos/cm = Micromhos per centimeter  
 c=Calibration exceedance  
 EPA =U.S. Environmental Protection Agency  
 g=Quantification below reporting limit  
 h=Holding time was missed by 0.5 hours  
 ID=Identification  
 J=Estimated concentration  
 J+=Estimated concentration with a high bias  
 MDL=Method detection limit

mg/L=Milligram per liter  
 mV=Millivolt  
 N=Nitrogen  
 na=Not available  
 NE=Not established  
 NTU=Nephelometric Turbidity Unit  
 PQL=Practical quantitation limit  
 RDX = Cyclotrimethylenetrinitramine  
 U=Not detected

<sup>1</sup>MCL, EPA primary maximum contaminant level for drinking water  
<sup>2</sup>PRG, EPA Region IX preliminary remediation goal for tap water, 2004  
<sup>3</sup>PRG for Dinitrotoluene mixture

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
 (PAGE 1 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
BLDG70MW01	Feb-97	<1	<0.5	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Jul-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Jul-97 Duplicate	NA	NA	<0.11	<0.094	<0.022	<0.022	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.054	<0.034	<0.088	<0.22	<0.097
	Aug-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
BLDG70MW01 (cont.)	Nov-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22
	Dec-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-02	NA	NA	NA	NA	NA	NA	NA	<0.18	<0.18	<0.16	<0.12	<0.31	<0.3
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	0.72	<0.05	<0.2	<1	<0.069	<0.038	NA	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dec-05	0.19	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	
DZB101-13MW8	Dec-05	<0.13 b	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
DZB101-44MW1	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	0.5 J	<0.4	<0.9	<1.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	4 J	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
Nov-99	NA	NA	0.3 J	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
DZB101-44MW1(cont.)	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00 Duplicate	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-01	NA	NA	0.6 J	<0.087	<0.16	<0.047	<0.3	NA	NA	NA	NA	NA	NA
	Aug-01	NA	NA	<0.19	<0.087	<0.16	<0.047	<0.3	NA	NA	NA	NA	NA	NA
	Nov-01	NA	NA	<0.19	<0.087	<0.16	<0.047	NA	NA	NA	NA	NA	NA	NA
	Feb-02	NA	NA	<0.19	<0.11	<0.21	<0.2	<0.55	NA	NA	NA	NA	NA	NA
	Feb-02 Duplicate	NA	NA	<0.19	<0.11	<0.21	<0.2	<0.55	NA	NA	NA	NA	NA	NA
	Nov-02	NA	NA	<0.19	<0.22	<0.34	<0.22	NA	NA	NA	NA	NA	NA	NA
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	<0.2	<1	<0.069	<0.038	NA	NA	NA	NA	NA	NA	NA
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dec-05	<0.12 b	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	
DZB101-44MW2	Oct-97	NA	NA	3 J	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	0.8 J	0.4 J	0.5 J	<1.1
	Oct-97 Duplicate	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	1 J	<0.4	<0.9	<1.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte	Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether	
	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
Well ID	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
DZB101-44MW2 (cont.)	Jun-98	NA	NA	650 J	<3.5	<7	<6.5	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	4	<0.14	<0.21	<0.23	NA	<0.55
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-99 Duplicate	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	0.8 J	<0.09	<0.06	<0.05	0.5 J	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	0.7 J	0.4 J	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	3	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Aug-00 Duplicate	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	3 J	0.7 J	<0.16	<0.047	<0.3	NS	NS	NS	NS	NS	NS
	Aug-01	NA	NA	<0.19	<0.087	<0.16	<0.047	<0.3	NS	NS	NS	NS	NS	NS
	Nov-01	NA	NA	<0.19	<0.087	<0.16	<0.047	NA	NS	NS	NS	NS	NS	NS
Feb-02	NA	NA	<0.19	<0.11	<0.21	<0.2	<0.55	NS	NS	NS	NS	NS	NS	
Nov-02	NA	NA	<0.19	<0.22	<0.34	<0.22	NA	NA	NA	NA	NA	NA	NA	

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
DZB101-44MW2 (cont.)	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	1.8	<1	<0.069	<0.038g	NA	NA	NA	NA	NA	NA	NA
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	<0.12 b	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
DZB101-44MW3	Oct-97	NA	NA	4,000 J	<0.094	<0.022	<0.022	<0.3	1 J	<0.5	<0.3	<0.4	<0.9	<1.1
	Mar-98	NA	NA	2,300	<6.9	<14	<13	<0.3	1 J	<0.14	<0.21	<0.23	NA	<0.55
	Mar-98	NA	NA	1,400	<6.9	<14	<13	<0.3	1 J	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	1,700	<6.9	<14	<13	<0.3	1 J	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	5,600	<2,800	NA	<5,200	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Dec-98	NA	NA	1,500	<690	NA	<1,300	NA	0.6 J	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	1,700	<1,300	<1,100	<1,300	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	1,400 J	<1,300	<1,100	<1,300	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	1,200	<325	<275	<325	<0.24	0.4 J	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	860	<52	<44	<52	<0.24	0.8 J	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	730	<38	<13.2	<10.4	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	850	<245	<85	<65	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	800	<38	<13.2	<10.4	<0.34	0.8 J	<0.26	<0.21	<0.26	<0.45	<0.53
Nov-00	NA	NA	750	<245	<85	<65	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097	



TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
HWAAP02 (cont.)	May-03	NA	NA	<0.2	<1	<0.069	<0.038	NA	NA	NA	NA	NA	NA	NA
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05 <sup>1</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
HWAAP09	Dec-05	<0.065 b	<0.05	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
HWAAP10	Dec-05	1.4	<0.05	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
HWAAP15	Dec-05	0.21	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
HWAAP16	Dec-05	0.19	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
	Dec-05 Duplicate	0.16	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
HWAAP17	Dec-05	0.080 J g	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
HWAAP18	Dec-05	0.15	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW01	Nov-05	2.6	<0.2	<1	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW02	Jan-97	41	<0.5	<1	37	6.5	14	<2	<5	<5 J	<5	<5	NA	NA
	Feb-97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-97	NA	NA	<0.13	10	<0.031	<0.035	<7.1	<0.1	<0.2	<0.1	<0.2	<0.2	<0.1
	Jul-97	NA	NA	<0.13	40	6 J	17	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	25	4 J	10 J	<0.3	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Oct-97 Duplicate	NA	NA	<0.11	16	2 J	5 J	<0.3	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>e</sup>	5 <sup>e</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW02 (cont.)	Mar-98	NA	NA	<0.078	0.6 J-	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18 U <sub>J</sub>
	Mar-98 Duplicate	NA	NA	<0.078	<0.069 U <sub>J</sub>	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Jun-98	NA	NA	<0.078	34	4 J	11	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	25	NA	9 J	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	29	NA	10 J	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	31	8 J	14	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	13	2 J	5 J	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	28	4 J	13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Aug-99 Duplicate	NA	NA	<0.29	33	5 J	15	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	10	2 J	6 J	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	26	4 J	14	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	29	4	15	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00 Duplicate	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	27	4	15	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	26	4 J	14	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	<0.19	21	4 J	14	<0.3	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Aug-01	NA	NA	<0.19	22	4 J	15	<0.3	NA	NA	NA	NA	NA	NA
Aug-01 Duplicate	NA	NA	<0.19	13	3 J	9 J	<0.3	NA	NA	NA	NA	NA	NA	
Nov-01	NA	NA	<0.19	16	3 J	11	NA	NA	NA	NA	NA	NA	NA	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW02 (cont.)	Feb-02	NA	NA	0.8 J	22	4 J	16	<0.55	NA	NA	NA	NA	NA	NA
	Nov-02	62.7 Jh	<1 Jh	<0.19	18	4 Jg	15	<0.64	<2	<1	<2	<2	NA	NA
	Nov-02 Duplicate	59.6 Jh	<1.3 Jh	<0.19	15	3 Jg	12	<0.64	<2	<1	<2	<2	<2	<2
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	66.7 <sup>i</sup>	<2	<0.2	20	4.35	18.7	<0.93	<2	<1	<2	<2	<2	<2
	May-03 Duplicate	69.9 <sup>h</sup>	<1	<0.2	17	3.49	15.7	<0.93	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IRPMW04	Dec-05	59.7	<1.3	<0.25	9.8	3.2	15.6	<0.96	<2	<1	<2	<2	<2	<2
IRPMW05	Nov-05	0.46	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
	Jan-97	<1	<0.5	<1	<1	<1	<1	<2	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Apr-97 Duplicate	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Mar-98	NA	NA	<0.078	<0.069 UJ	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18 UJ
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	0.4 J	<0.36	<0.24	<0.24	NA	<0.18

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW05 (cont.)	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	0.6 J	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.5 J	<0.08	0.4 J	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.7 J	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.6 J	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	<0.19	<0.087	<0.16	<0.047	<0.3	0.7 J	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NA	NA	<0.19	<0.22	<0.34	<0.22	NA	1 Jg	<1	<2	<2	<2	<2
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	<0.2	<1	<0.069	<0.038	NA	1 Jg	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	1	<0.2	<0.25	<1	<0.18	<0.06	<0.96	1 Jg	<1	<2	<2	<2	<2
IRPMW06	Nov-05	0.20 Jg	<0.25	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW07	Dec-05	3.3	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 11 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>e</sup>	5 <sup>e</sup>	1000 <sup>f</sup>	700 <sup>f</sup>	10000 <sup>f</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW08 <sup>2</sup>	Jan-97	<1	<0.5	<1	3.7	<1	<1	<2 J	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Mar-98	NA	NA	<0.078	4 J	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	3 J	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	3 J	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98 Duplicate	NA	NA	<0.078	3 J	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	0.7 J	<0.11	<0.13	<0.24	<0.72	<0.26	<0.24	<0.24	NA	<0.18
	May-99	NA	NA	<0.29	3 J	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	3 J	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	2 J	<0.11	0.4 J	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Nov-99 Duplicate	NA	NA	<0.29	3 J	0.2 J	0.4 J	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	2 J	<0.033	1 J	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Feb-00 Duplicate	NA	NA	<0.13	3 J	<0.033	1 J	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	2	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	2	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	2 J	0.7 J	1 J	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	<0.19	2 J	<0.16	<0.047	<0.3	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	May-01 Duplicate	NA	NA	<0.19	2 J	0.6 J	0.6 J	<0.3	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW08 <sup>2</sup> (cont.)	Aug-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
IRPMW08A	Dec-05	0.14 Jg	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW09	Jan-97	3	<0.5	<1	<1	<1	<1	<2	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	3 J	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98 Duplicate	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether	
	Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
		Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
		Sample Date													
IRPMW09 (cont.)		May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
		May-99 Duplicate	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
		Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
		Aug-99 Duplicate	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	0.8	<0.03	<0.17	<0.16
		Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
		Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
		May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
		Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
		Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
		May-01	NA	NA	<0.19	<0.087	<0.16	<0.047	<0.3	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
		Nov-02	3.5 Jh	<1 Jh	<0.19	<0.22	<0.34	<0.22	NA	NA	NA	NA	NA	NA	NA
		Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
		May-03	4	<0.5	<0.2	<1	<0.069	<0.08	NA	NA	NA	NA	NA	NA	NA
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	Dec-05	4	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	
IRPMW10		Nov-05	<0.14 b	<0.25	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW11		Dec-05	0.51	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW12		Dec-05	0.3	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
		Dec-05 Duplicate	0.3	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW13		Dec-05	0.49	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER

HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA

(PAGE 14 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>e</sup>	5 <sup>e</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW14	Jan-97	5.1	<0.5	<1	<1	<1	<1	<2 J	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.1	<0.2	<0.1	<0.2	<0.2	<2.1
	Apr-97 Duplicate	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.1	<0.2	<0.1	<0.2	<0.2	<2.1
	Mar-98	NA	NA	<0.078	<0.069 UJ	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
Aug-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 15 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW14 (cont.)	Nov-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	0.6 J	<0.093	<0.19	0.4 J
	Feb-02	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	4.7	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
	Dec-05 Duplicate	4.8	<0.1	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW15	Jan-97	12	<0.5	<1	<1	<1	<1	<2	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.1	<0.2	<0.1	<0.2	<0.2	<2.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	2	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.72	<0.26	<0.24	<0.32	<0.31	<0.52
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>e</sup>	5 <sup>e</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW15 (cont.)	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Aug-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22
	Aug-01 Duplicate	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22
	Nov-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	0.7 J	<0.093	<0.19	<0.22
	Feb-02	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Feb-02 Duplicate	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	11.7	<0.5	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2	<2
Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Dec-05	13.5	<0.25	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	
IRPMW16	Feb-97	<1	<0.5	<1	<1	<1	<1	<2	3.1 J	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	4	<0.2	<0.1	<0.2	<0.2	<2.1
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	4	<0.2	<0.3	<0.2	<0.4	<0.4

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW16 (cont.)	Jul-97 Duplicate	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	3	<0.2	<0.3	<0.3	<0.5	<0.5
	Mar-98	NA	NA	<0.078	<0.069 UJ-	<0.14	<0.13	<0.3	4	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	4.2	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	4	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	4.8	<0.14	<0.21	<0.23	NA	<0.55
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	4.5	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	9.2	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	4	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	4.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	5.5	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	3	<0.08	0.5 J	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	2	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	4.5	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	3	<0.054	<0.034	<0.088	<0.22	<0.097
	Nov-00 Duplicate	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	3	<0.054	<0.034	<0.088	<0.22	<0.097
May-01	NA	NA	NA	NA	NA	NA	NA	2	<0.043	<0.035	<0.036	<0.098	<0.13	
Aug-01	NA	NA	NA	NA	NA	NA	NA	2 J	<0.14	<0.11	<0.093	<0.19	<0.22	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW16 (cont.)	Nov-01	NA	NA	NA	NA	NA	NA	NA	3	<0.14	0.7 J	<0.093	<0.19	<0.22
	Feb-02	NA	NA	NA	NA	NA	NA	NA	4	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	3	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	2.7	<0.2	<0.25	<1	<0.18	<0.06	<0.96	2	<1	<2	<2	<2	<2
IRPMW17	Feb-97	3.5	<0.5	<1	<1	<1	<1	<2	<5	<5	<5	<5	NA	NA
	Feb-97 Duplicate	3.5	<0.5	<1	<1	<1	<1	<2	1.1 J	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	0.8 J	<0.2	<0.1	<0.2	<0.2	<2.1
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	0.8 J	<0.2	<0.3	<0.3	<0.5	<0.5
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	1 J	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	0.8 J	<0.36	<0.24	<0.24	NA	<0.18
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	0.8 J	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	0.8 J	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	0.8 J	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.72	<0.26	<0.24	<0.32	<0.31	<0.52

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>e</sup>	5 <sup>e</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW17 (cont.)	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	0.8 J	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	0.7 J	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	0.9 J	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.8 J	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.5 J	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.8 J	<0.26	<0.21	<0.26	<0.45	<0.53
	Aug-00 Duplicate	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.8 J	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.9 J	<0.26	<0.21	<0.26	<0.45	<0.53
	May-01	NA	NA	NA	NA	NA	NA	NA	0.7 J	<0.054	<0.034	<0.088	<0.22	<0.097
	Aug-01	NA	NA	NA	NA	NA	NA	NA	0.8 J	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22
	Feb-02	NA	NA	NA	NA	NA	NA	NA	0.8 J	<0.14	0.7 J	<0.093	<0.19	0.3 J
	Nov-02	NS	NS	NS	NS	NS	NS	NS	0.9 J	<0.043	<0.035	<0.036	<0.098	<0.13
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	7.2	<0.5	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS
	Aug-03	NS	NS	NS	NS	NS	NS	NS	0.9 Jg	<1	<2	<2	<2	<2
	Dec-05	8.9	<0.2	<0.25	<1	<0.18	<0.06	<0.96	NS	NS	NS	NS	NS	NS
Feb-97	1.8	<0.5	<1	<1	<1	<1	<2	0.5 Jg	<1	<2	<2	<2	<2	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW18	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	2 J	<0.2	<0.1	<0.2	<0.2	<2.1
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	2 J	<0.2	<0.3	<0.3	<0.5	<0.5
	Oct-97 Duplicate	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	2 J	<0.2	<0.3	<0.3	<0.5	<0.5
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	2 J	<0.14	<0.21 U,J	<0.23	NA	<0.55
	Mar-98 Duplicate	NA	NA	<0.078	<0.069 U,J	<0.14	<0.13	<0.3	2 J	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	2 J	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	1 J	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	1 J	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	1 J	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	1 J	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.9 J	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.7 J	<0.08	0.4 J	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.9 J	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	0.9 J	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	0.7 J	<0.043	<0.035	<0.036 U,J	<0.098	<0.13



TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
IRPMW19 (cont.)	Sample Date													
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Aug-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22
	Nov-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	0.6 J	<0.093	<0.19	0.3 J
	Nov-01 Duplicate	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	0.6 J	<0.093	<0.19	0.3 J
	Feb-02	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	5.2	<0.5	NA	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	10.4	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW20	Jan-97	9.7	<0.5	<1	<1	<1	<1	<2	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.1	<0.2	<0.1	<0.2	<0.2	<2.1

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW20 (cont.)	Mar-98	NA	NA	<0.078	<0.069 UJ	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18 UJ
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98 Duplicate	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	NA	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99 Duplicate	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99 Duplicate	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.33	<0.37	<0.34	<0.93	<0.41
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.13	<0.062	<0.085	<0.092	<0.15	<0.14
	Aug-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036 UJ	<0.098	<0.13
	Nov-01	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	<0.11	<0.093	<0.19	<0.22
	Feb-02	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.14	0.7 J	<0.093	<0.19	<0.22
								<0.067	<0.043	<0.035	<0.036	<0.098	<0.13	



TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 25 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW32	Jan-97	<1	<0.5	<1	<1	<1	<1	<2	<5	<5 J	<5	<5	NA	NA
	Jan-97 Duplicate	<1	<0.5	<1	<1	<1	<1	<2	<5	<5 J	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.44	<0.22	<0.35	<0.3	NA	<0.4
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	NA	NA	NA	NA	NA	NA
	Nov-99 Duplicate	NA	NA	NA	NA	NA	NA	NA	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.13	<0.062	<0.085	<0.092	<0.15	<0.14
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	<0.2	<1	<0.069	<0.038	NA	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dec-05	<0.12 b	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 26 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW33	Jan-97	2.2	<0.5	<1	<1	<1	<1	5.9	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Oct-97 Duplicate	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.44	<0.22	<0.35	<0.3	NA	<0.4
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	0.2 J	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	0.4 J	<0.13	<0.11	<0.13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	NA	NA	NA	NA	NA	NA
	Nov-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25	
IRPMW33 (cont.)	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	2.5	<0.05	<0.2	<1	<0.069	<0.038	NA	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	2.1	<0.25	<0.25	<1	0.18	<0.06	<0.96	0.4 Jg	<1	<2	<2	<2	<2

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW34	Jan-97	1.8	<0.5	<1	<1	<1	<1	2.1	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Jul-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	0.4 J	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	NA	NA	NA	NA	NA	NA
	Nov-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	Nov-02	NA	NA	<0.19	<0.22	<0.34	<0.22	NA	NA	NA	NA	NA	NA	NA
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
May-03	NA	NA	<0.2	<1	<0.069	<0.038	NA	NA	NA	NA	NA	NA	NA	
Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Dec-05	0.79	<0.5	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW35	Jan-97	1.8	<0.5	6.4	<1	<1	<1	5.9	<5	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Jul-97	NA	NA	6 J	<0.094	<0.022	<0.022	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	8 J	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Mar-98	NA	NA	2 J	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	3 J	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	4 J	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	5 J	<0.069	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	7 J	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	7 J	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	6 J	<0.13	<0.11	0.7 J	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	7 J	<0.13	<0.11	0.7 J	<0.24	NA	NA	NA	NA	NA	NA
	Nov-99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-00	NA	NA	8 J	<0.097	<0.033	2	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	7	<0.097	<0.033	1	18	<0.28	<0.08	0.4 J	<0.15	<0.37	<0.25
	Aug-00	NA	NA	8	<0.097	<0.033	1	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	8 J	<0.097	<0.033	1 J	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	7 J	<0.087	<0.16	2 J	<0.3	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
May-03	NA	NA	4.04	<1	0.069	<0.038	NA	NA	NA	NA	NA	NA	NA	
Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Dec-05	1.8	<0.25	<0.25	<1	0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW36	Jan-97	<1	<0.5	<1	<1	<1	<1	<2	<5	<5	<5	<5	NA	NA
	Jan-97 Duplicate	NA	NA	<1	<1	<1	<1	<2	NA	NA	NA	NA	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Apr-97 Duplicate	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	NA	NA	NA	NA	NA	NA
	Jul-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Oct-97 Duplicate	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.5	<0.5	<0.3	<0.4	<0.9	<1.1
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	NA	NA	NA	NA	NA	NA
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.36	<0.36	<0.97	<0.36	NA	<0.49
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98 Duplicate	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	6.9	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13 U, J-
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00 Duplicate	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>b</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW36 (cont.)	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NA	NA	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2	<2
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-05	0.21	<0.25	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW37	Jan-97	NA	NA	<1	<1	<1	<1	<2	11	<5	<5	<5	NA	NA
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	57.3	<0.5	<0.3	<0.4	<0.9	<1.1
	Apr-97 Duplicate	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	61	<0.5	<0.3	<0.4	<0.9	<1.1
	Jul-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<7.1	51.2	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	120	<1	<2	<1	<2	<2
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	57	<0.14	<0.21	<0.23	NA	<0.55
	Mar-98 Duplicate	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	51	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	80	<1.8	<1.2	<1.2	NA	<0.9
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	61	<0.36	<0.24	<0.24	NA	<0.18
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	37	<0.36	<0.24	<0.24	NA	<0.18
Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	23	<0.33	<0.37	<0.34	<0.93	<0.41	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW37 (cont.)	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	54	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	47	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	177	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	103	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	NA	NA	NA	NA	NA	60	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	77	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	116	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	7.6	<0.043	<0.035	<0.036	<0.098	<0.13
	Aug-01	NA	NA	NA	NA	NA	NA	NA	25	<0.024	<0.031	<0.044	<0.12	<0.038
	Nov-01	NA	NA	NA	NA	NA	NA	NA	31	<0.14	<0.11	<0.093	<0.19	<0.22
	Feb-02	NA	NA	NA	NA	NA	NA	NA	93	<0.18	<0.16	<0.12	<0.31	<0.3
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	104 <sup>e</sup>	<1	<2	NS	NS	NS
Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Dec-05	0.18	<0.05	<0.25	<1	<0.18	<0.06	<0.96	6.6	<1	<2	<2	<2	<2	
IRPMW37A	Nov-02	2	<1	<0.19	<0.22	<0.34	<0.22	<0.64	<2	<1	<2	<2	<2	<2
	Feb-03	0.36 Jgh	<0.5 Jh	<0.2 Jh	<1	<0.07 Jh	<0.038 Jh	<0.64	<2	<1	<2	<2	<2	<2
	May-03	0.53	<0.4	<0.2	<1	<0.069	<0.038	<0.93	<2	<1	<2	<2	<2	<2
	Aug-03	0.48	<0.4	<0.2	<1	<0.069	<0.038	<0.93	<2	<1	<2	<2	<2	<2
	Dec-05	0.19	<0.13	2.4	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW38	Dec-05	0.17	<0.05	<0.39	<1	<0.28	<0.093	<1.4	<2	<1	<2	<2	<2	<2

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW39	Dec-05	0.17	<0.05	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW40	Dec-05	0.86	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
	Dec-05 Duplicate	0.86	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW41	Dec-05	0.94	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW42	Dec-05	1.8	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW43	Dec-05	2.5	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW44	Dec-05	2.8	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW45	Jan-97	1.7	<0.5	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Apr-97	NA	NA	<0.13	<0.065	NA	NA	<7.1	<0.1	<0.2	<0.1	<0.2	<0.2	<2.1
	Jul-97	NA	NA	NA	NA	NA	NA	NA	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Jul-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<7.1	NA	0.8 J	<0.3	<0.3	<0.5	<0.5
	Oct-97	NA	NA	<0.11	<0.094	<0.022	<0.022	<0.3	<0.3	<0.14	<0.21	<0.23	NA	<0.55
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
 SELECTED COMPOUNDS IN GROUNDWATER  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CAS No.		14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW45 (cont.)	Mar-98 Duplicate	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Jun-98 Duplicate	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Sep-98 Duplicate	NA	NA	4 J	<0.069	NA	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.26	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-99 Duplicate	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.3	<0.18	<0.22	<0.42	<0.59
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.3	<0.18	<0.22	<0.42	<0.59
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	0.4 J	<0.12	<0.15	<0.37	<0.25
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.054	<0.034	<0.088	<0.22	<0.25
	May-01	NA	NA	NA	NA	<0.033	<0.026	<0.34	<0.057	<0.043	<0.035	<0.036	<0.098	<0.097
	Nov-02	NS	NS	NS	NS	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS
	Aug-03	NS	NS	NS	NS	NA	NA	NA	<2	<1	<2	<2	<2	<2
Dec-05	1.3	<0.13	<0.25	<1	NS	NS	NS	NS	NS	NS	NS	NS	NS	
IRPMW46	Dec-05	1.4	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW47	Dec-05	1.4	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW48	Dec-05	1.5	<0.25	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW49	Feb-97	<1	<0.5	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.3	<0.5	<0.5
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Jul-97 Duplicate	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	2 J	<0.094	<0.022	<0.022	<0.3	<0.3	<0.2	<0.3	<0.2	<0.4	<0.4
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.36	<0.36	<0.97	<0.36	NA	<0.49
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	<0.26	<0.14	<0.21	<0.23	NA	<0.55
	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	<0.24	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.05	<0.09	<0.06	<0.05	<0.11	<0.13
Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.3	<0.1	<0.4	<0.03	<0.17	<0.16	

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>e</sup>	5 <sup>e</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW49 (cont.)	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	<0.26	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	2 J	<0.097	<0.033	<0.026	<0.34	<0.28	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.28	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	38	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	<0.057	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	<0.067	<0.043	<0.035	<0.036	<0.098	<0.13
	Nov-02	NA	NA	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2	<2
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	<2	<1	<2	<2	<2	<2
	Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Dec-05	0.14	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2	
IRPMW50	Feb-97	<1	<0.5	<0.13	<0.065	<0.031	<0.035	<7.1	32	<0.2	<0.3	<0.3	<0.5	<0.5
	Apr-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	26	<0.2	<0.1	<0.2	<0.2	<2.1
	Jul-97	NA	NA	<0.13	<0.065	<0.031	<0.035	<7.1	28	<0.2	<0.3	<0.2	<0.4	<0.4
	Oct-97	NA	NA	2 J	<0.094	<0.022	<0.022	<0.3	33	<0.2	<0.3	<0.2	<0.4	<0.4
	Mar-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	30	<0.36	<0.97	<0.36	NA	<0.49
	Jun-98	NA	NA	<0.078	<0.069	<0.14	<0.13	<0.3	31	<0.36	<0.24	<0.24	NA	<0.18
	Sep-98	NA	NA	<0.078	<0.069	NA	<0.13	<0.3	29	<0.14	<0.21	<0.23	NA	<0.55

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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Analyte		Nitrate as N	Nitrite as N	RDX	2,4-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
	Sample Date													
IRPMW50 (cont.)	Dec-98	NA	NA	<0.078	<0.069	NA	<0.13	NA	32	<0.36	<0.24	<0.24	NA	<0.18
	Feb-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	29	<0.33	<0.37	<0.34	<0.93	<0.41
	May-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	27	<0.09	<0.06	<0.05	<0.11	<0.13
	Aug-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	27	<0.1	<0.4	<0.03	<0.17	<0.16
	Nov-99	NA	NA	<0.29	<0.13	<0.11	<0.13	<0.24	32	<0.33	<0.37	<0.34	<0.93	<0.41
	Feb-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	32	<0.26	<0.21	<0.26	<0.45	<0.53
	May-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	18	<0.08	<0.12	<0.15	<0.37	<0.25
	Aug-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	34	<0.26	<0.21	<0.26	<0.45	<0.53
	Nov-00	NA	NA	<0.13	<0.097	<0.033	<0.026	<0.34	24	<0.054	<0.034	<0.088	<0.22	<0.097
	May-01	NA	NA	NA	NA	NA	NA	NA	18	<0.043	<0.035	<0.036 U.J.	<0.098	<0.13
	Aug-01	NA	NA	NA	NA	NA	NA	NA	21	<0.024	<0.031	<0.044	<0.12	<0.038
	Nov-01	NA	NA	NA	NA	NA	NA	NA	23	<0.14	<0.11	<0.093	<0.19	<0.22
	Feb-02	NA	NA	NA	NA	NA	NA	NA	22	<0.18	<0.16	<0.12	<0.31	<0.3
	Nov-02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-03	NA	NA	NA	NA	NA	NA	NA	21	<1	<2	<2	<2	<2
Aug-03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Dec-05	0.38	<0.13	<0.25	<1	<0.18	<0.06	<0.96	11	<1	<2	<2	<2	<2	
IRPMW50A	Nov-02	5.4	<4	<0.19	<0.22	<0.34	<0.22	<0.64	213e	<1	<2	<2	<2	<2
	Feb-03	3	<2.5	<0.29 Jh	<1	<0.07 Jh	<0.038 Jh	<0.64	242f	<1	<2	<2	<2	<2
	May-03	3.9	<2	<0.2	<1	<0.069	<0.038	<0.93	253e	<1	<2	<2	<2	<2
	Aug-03	2.5	<0.4	<0.2	<1	<0.069	<0.038	<0.93	217	<1	<2	<2	<2	<2
	Dec-05	3.0	<0.8	<0.25	<1	<0.18	<0.06	<0.96	232 h	<1	<2	<2	<2	<2

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 37 of 38)

Analyte		Nitrate as N	Nitrite as N	RDX	2,4,6-Trinitrotoluene	2-Amino-4,6-Dinitrotoluene	4-Amino-2,6-Dinitrotoluene	Picric Acid as Ammonium Picrate	Trichloroethene	Benzene	Toluene	Ethylbenzene	M&P Xylenes	Methyl Tertiary Butyl Ether
Well ID	HWAD Action Level	10 <sup>a</sup>	1.0 <sup>a</sup>	0.61 <sup>b</sup>	2.2 <sup>b</sup>	0.099 <sup>c</sup>	0.099 <sup>c</sup>	1 <sup>d</sup>	5 <sup>a</sup>	5 <sup>a</sup>	1000 <sup>a</sup>	700 <sup>a</sup>	10000 <sup>a</sup>	13 <sup>b</sup>
	Units	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	CAS No.	14797558	7727379	121824	118967	35572782	19406510	131748	79016	71-43-2	108-88-3	100-41-4	TT015	1634-04-4
Sample Date														
IRPMW50B	Nov-02	0.91 J-,h	0.63 Rh	<0.19	<0.22	<0.34	<0.22	<0.64	12	<1	<2	<2	<2	<2
	Feb-03	0.35 Jg	<0.5	<0.2 Jh	<1	<0.07 Jh	<0.038 Jh	<0.64	13	<1	<2	<2	<2	<2
	May-03	0.63	<0.5	<0.2	<1	<0.069	<0.038	<0.93	8.9	<1	<2	<2	<2	<2
	Aug-03	0.45	<0.4	3.3	<1	<0.069	<0.038	<0.93	5.8	<1	<2	<2	<2	<2
	Dec-05	0.20	<0.13	<0.25	<1	<0.18	<0.06	<0.96	5.1	<1	<2	<2	<2	<2
IRPMW51	Dec-05	0.15	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
	Dec-05 Duplicate	0.14	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW52	Dec-05	0.20	<0.13	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
IRPMW56	Nov-02	3.6	<0.63	750g	<4.4	<6.8	<4.4	<0.64	3	<1	<2	<2	<2	<2
	Feb-03	2.8 J-,h	<0.5 Jh	750h	<30	<2.1 Jh	<1.1 Jh	<0.64	4.2	<1	<2	<2	<2	<2
	May-03	3	<0.4	658g	<20	<1.4	<0.76	<0.93	4	<1	<2	<2	<2	<2
	Aug-03	2.6	<0.4	947	<40	<2.8	<1.5	<0.93	3	<1	<2	<2	<2	<2
IRPMW56 (cont.)	Dec-05	1.6	<0.13	329	<10	<1.8	<0.6	<0.96	1 Jg	<1	<2	<2	<2	<2
USGS103-41MW23	Nov-05	0.57	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2
USGS103-41MW25	Nov-05	<0.13	<0.2	<0.25	<1	<0.18	<0.06	<0.96	<2	<1	<2	<2	<2	<2

Notes:

Bold values exceed the action levels.

In 2005, groundwater samples were collected from November 28th through December 16th.

Data prior to November 2002 are from Tetra Tech Inc.

If detected, Picric Acid as Ammonium Picrate was calculated by multiplying the laboratory's method detection limit for picric acid by a conversion factor of 1.07.

Well IRPMW03 was artesian and not sampled. Wells USGS103-41MW01, USGS103-41MW04, USGS103-41MW07, USGS103-41MW18, USGS103-41MW20, and USGS103-41MW21 were not sampled due to lack of access. Well USGS103-41MW14 was not found.

TABLE 6

SUMMARY OF HISTORICAL AND MOST RECENT ANALYTICAL RESULTS FOR  
SELECTED COMPOUNDS IN GROUNDWATER  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 38 of 38)

Notes (Continued)

- <sup>1</sup> = Well HWAAP02 was dry, therefore it was not sampled.
- <sup>2</sup> = Well IRPMW08 was replaced with IRPMW08A in July 2004.
- <sup>a</sup> = MCL, EPA primary maximum contaminant level for drinking water.
- <sup>b</sup> = PRG, EPA Region IX preliminary remediation goal for tap water.
- <sup>c</sup> = PRG for Dinitrotoluene mixture, EPA Region IX preliminary remediation goal for tap water.
- <sup>d</sup> = Action level for picric acid is based on toxicology study by US Agency for Toxic Substances and Disease Registry performed for the Nevada Division of Environmental Protection.
- <sup>e</sup> = Analyzed with a dilution factor of 10.
- <sup>f</sup> = Analyzed with a dilution factor of 2.
- <sup>g</sup> = Analyzed with a dilution factor of 20.
- <sup>h</sup> = Analyzed with a dilution factor of 30.
- <sup>i</sup> = Analyzed with a dilution factor of 40.

<= Less than reporting limit

µg/L = microgram per liter

CAS = Chemical Abstract Service

b = Analyte reported in the associated method blank and/or equipment blank

e = Internal standard exceedence

f = Calibration exceedence

g = Quantification below reporting limit

h = Hold times were missed by less than a factor of 2.

I = Compound reported to method detection limit (MDL); MDL was less than half the quantitation limit

J = Reported between PQL and MDL (November 2002 only). All other dates J = estimated.

J- = Indicates an estimated concentration with a low bias.

MCL = Maximum contaminant level

mg/L = Milligram per liter

N = Nitrogen

NA = Not analyzed

NS = Not sampled

PRG = Preliminary remediation goal

PQL = Practical quantitation limit

R = Rejected, hold time missed by greater than a factor of 2.

RDX = Cyclotriazene

U = Not detected

TABLE 7

2006 GROUNDWATER MONITORING AND ANALYSIS SCHEDULE  
 HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
 (PAGE 1 OF 2)

Well	Ammonium As N EPA 350.3	Explosives EPA 8330	Nitrate/Nitrite EPA 300.1	Picric Acid EPA 8330M	Total Kjeldahl Nitrogen EPA 351.3	VOCs EPA Method 8011	VOCs EPA 8260B
BLDG70MW01							
DZB101-13MW4							
DZB101-13MW5							
DZB101-13MW8							
DZB101-44MW1*		x	x	x		x	x
DZB101-44MW2*		x	x	x		x	x
DZB101-44MW3*		x	x	x		x	x
DZB101-15MW6/7							
HWAAP02 <sup>1</sup>	x	x	x	x	x	x	x
HWAAP09							
HWAAP10							
HWAAP15							
HWAAP16							
HWAAP17							
HWAAP18							
IRPMW01		x		x			x
IRPMW02	x	x	x	x	x	x	x
IRPMW03							
IRPMW04	x	x	x	x	x		
IRPMW05							
IRPMW06							
IRPMW07							
IRPMW08A							
IRPMW09	x		x		x		
IRPMW10							
IRPMW11							
IRPMW12							
IRPMW13							
IRPMW14	x		x		x	x	x
IRPMW15	x		x		x	x	x
IRPMW16	x		x		x		
IRPMW17	x		x		x		
IRPMW18	x		x		x		
IRPMW19	x		x		x		
IRPMW20	x		x		x		
IRPMW21	x		x		x	x	x
IRPMW22							
IRPMW23							
IRPMW24	x	x	x	x	x	x	x
IRPMW25	x	x	x	x	x	x	x
IRPMW26							
IRPMW27							
IRPMW28							
IRPMW29							

TABLE 7

**2006 GROUNDWATER MONITORING AND ANALYSIS SCHEDULE  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(PAGE 2 OF 2)**

Well	Ammonium As N EPA 350.3	Explosives EPA 8330	Nitrate/Nitrite EPA 300.1	Picric Acid EPA 8330M	Total Kjeldahl Nitrogen EPA 351.3	VOCs EPA Method 8011	VOCs EPA 8260B
IRPMW30							
IRPMW31	x		x		x		
IRPMW32							
IRPMW33							
IRPMW34	x		x		x		
IRPMW35	x	x	x	x	x		
IRPMW36							
IRPMW37						x	x
IRPMW37A							
IRPMW38							
IRPMW39							
IRPMW40							
IRPMW41							
IRPMW42	x		x		x		
IRPMW43	x		x		x		
IRPMW44	x		x		x		
IRPMW45	x		x		x		
IRPMW46	x		x		x		
IRPMW47	x		x		x		
IRPMW48							
IRPMW49							
IRPMW50						x	x
IRPMW51							
IRPMW52							
IRPMW56*		x	x	x		x	x
IRPMW50A						x	x
IRPMW50B						x	x
IRPMW50C*		x	x	x		x	x
IRPMW50D*		x	x	x		x	x
IRPMW50E*		x	x	x		x	x
IRPMW50F*		x	x	x		x	x
IRPMW50G*		x	x	x		x	x
<b>Total 2006</b>	<b>23</b>	<b>16</b>	<b>32</b>	<b>16</b>	<b>23</b>	<b>21</b>	<b>22</b>

## Notes:

<sup>1</sup>Per NDEP's request: if HWAAP02 is dry, sample HWAAP09 instead; including EPA Method 8081A

\* Wells are being monitored quarterly for explosives and nitrates.

EPA = U.S. Environmental Protection Agency (analytical method)

VOC = Volatile organic compound

## APPENDIX A

GROUNDWATER ACTION LEVELS  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(Page 1 of 6)

Analyte	CAS Number	Action Level (µg/L)	Source
1,1,1,2-Tetrachloroethane	630-20-6	0.43	PRG <sup>a</sup>
1,1,1-Trichloroethane	71-55-6	200	MCL <sup>b</sup>
1,1,2,2-Tetrachloroethane	79-34-5	0.055	PRG
1,1,2-Trichloroethane	79-00-5	5	MCL
1,1-Dichloroethane	75-34-3	810	PRG
1,1-Dichloroethene	75-35-4	7	MCL
1,2,3-Trichloropropane	96-18-4	0.0056	PRG
1,2,4,5-Tetrachloro-benzene	95-94-3	11	PRG
1,2,4-Trichlorobenzene	120-82-1	70	MCL
1,2,4-Trimethylbenzene	95-63-6	12	PRG
1,2-Dibromo-3-chloropropane	96-12-8	0.2	MCL
1,2-Dibromoethane (EDB)	106-93-4	0.05	MCL
1,2-Dichlorobenzene	95-50-1	600	MCL
1,2-Dichloroethane	107-06-2	5	MCL
1,2-Dichloroethene, Total	540-59-0	55	PRG
1,2-Dichloropropane	78-87-5	5	MCL
1,2-Dinitrobenzene	528-29-0	3.6	PRG
1,2-Diphenylhydrazine	122-66-7	0.084	PRG
1,3,5-Trinitrobenzene	99-35-4	1,100	PRG
1,3,5-Trimethylbenzene	108-67-8	12	PRG
1,3-Dichlorobenzene	541-73-1	5.5	PRG
1,3-Dichloropropane	142-28-9	0.4	PRG
1,3-Dinitrobenzene	99-65-0	3.6	PRG
1,4-Dichlorobenzene	106-28-9	75	MCL
1-Methylethylbenzene	98-82-8	19	PRG
2,3,4,6-Tetrachlorophenol	58-90-2	1,100	PRG
2,3,7,8-TCDD	1746-01-6	0.00003	MCL
2,4,5-T	93-76-5	360	PRG
2,4,5-TP (Silvex)	93-72-1	290	PRG
2,4,5-Trichlorophenol	95-95-4	3,600	PRG
2,4,6-Trichlorophenol	88-06-2	3.6	PRG
2,4,6-Trinitrotoluene	118-96-7	2.2	PRG
2,4-D	94-75-7	360	MCL
2,4-DB	94-82-6	290	PRG
2,4-Dichlorophenol	120-83-2	110	PRG
2,4-Dimethylphenol	105-67-9	730	PRG
2,4-Dinitrophenol	51-28-5	73	PRG
2,4-Dinitrotoluene	121-14-2	73	PRG
2,6-Dinitrotoluene	606-20-2	36	PRG
2-Amino-4,6-Dinitrotoluene	35572-78-2	0.099	PRG <sup>c</sup>
2-Butanone	78-93-3	1,900	PRG

APPENDIX A

GROUNDWATER ACTION LEVELS  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(Page 2 of 6)

Analyte	CAS Number	Action Level (µg/L)	Source
2-Chloronaphthalene	91-58-7	490	PRG
2-Chlorophenol	95-57-8	30	PRG
2-Chlorotoluene	95-49-8	120	PRG
2-Methylphenol	95-48-7	1,800	PRG
2-Nitrotoluene	99-08-1	61	PRG
2-Nitroaniline	88-74-4	1	PRG
3,3-Dichlorobenzidine	91-94-1	0.15	PRG
3/4-Methylphenol(m/p-Cresol)	TT007	180	PRG
3-Nitrotoluene	99-08-1	61	PRG
4,4-DDD	72-54-8	0.28	PRG
4,4-DDE	72-55-9	0.2	PRG
4,4-DDT	50-29-3	0.2	PRG
4-Chlorotoluene	106-43-4	120	PRG
4-Amino-2,6-Dinitrotoluene	1946-51-0	0.099	PRG <sup>c</sup>
4-Chloroaniline	106-47-8	150	PRG
4-Methylphenol	106-44-5	180	PRG
4-Methy-2-pentanone	108-10-1	160	PRG
4-Nitrotoluene	99-99-0	61	PRG
Acenaphthene	83-32-9	370	PRG
Acetone	67-64-1	610	PRG
Acetophenone	98-86-2	0.042	PRG
Aldrin	309-00-2	0.004	PRG
alpha-BHC	319-84-6	0.011	PRG
Chlordane	5103-74-2	0.052	PRG
Aluminum	7429-90-5	50	MCL
Aniline	62-53-3	12	PRG
Anthracene	120-12-7	1,800	PRG
Aroclor-1016	12674-11-2	0.5	MCL
Aroclor-1221	11104-28-2	0.5	MCL
Aroclor-1232	11141-16-5	0.5	MCL
Aroclor-1242	53469-21-9	0.5	MCL
Aroclor-1248	12672-29-6	0.5	MCL
Aroclor-1254	11097-69-1	0.5	MCL
Aroclor-1260	11096-82-5	0.5	MCL
Arsenic	7440-38-2	50	MCL
Arsenic, Dissolved	7440-38-2d	50	MCL
Barium	7440-39-3	2,000	MCL
Benzene	71-43-2	5	MCL
Benzidine	92-87-5	0.00029	PRG
Benzo(a)anthracene	56-55-3	0.1	MCL

## APPENDIX A

GROUNDWATER ACTION LEVELS  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA

(Page 3 of 6)

Analyte	CAS Number	Action Level (µg/L)	Source
Benzo(a)pyrene	50-32-8	0.2	MCL
Benzo(b)fluoranthene	205-99-2	0.2	MCL
Benzoic acid	65-85-0	150,000	PRG
Benzyl alcohol	100-51-6	11,000	PRG
Beryllium	7440-41-7	4	MCL
Beryllium, Dissolved	7440-41-7d	4	MCL
beta-BHC	319-85-7	0.037	PRG
bis(2-Chloroethyl) ether	111-44-4	0.0098	PRG
bis(2-Chloroisopropyl)-ether	108-60-1	0.27	PRG
bis(2-Ethylhexyl)-phthalate	117-81-7	6	MCL
Bromobenzene	108-86-1	20	PRG
Bromodichloromethane	75-27-4	0.18	PRG
Bromoform	75-25-2	100	MCL
Bromomethane	74-83-9	8.7	PRG
Buytl benzyl phthalate	85-68-7	100	MCL
Cadmium	7440-43-9	5	MCL
Cadmium, Dissolved	7440-43-9d	5	MCL
Carbon disulfide	75-15-0	1,000	PRG
Carbon tetrachloride	56-23-5	5	MCL
Chlordane	57-74-9	2	MCL
Chloride	16887-00-6	250,000	MCL
Chlorobenzene	108-90-7	100	MCL
Chloroethane	75-00-3	4.6	PRG
Chloroform	67-66-3	0.17	PRG
Chloromethane	74-87-3	1.5	PRG
Chromium (total)	7440-47-3	100	MCL
Chromium, Dissolved	7440-47-3d	100	MCL
Chromium, Hexavalent	1333-82-0	110	PRG
Chrysene	218-01-9	9.2	PRG
cis-1,2-Dichloroethene	156-59-2	70	MCL
Cyanide, Total	57-12-5	200	MCL
Dalapon	75-99-0	200	MCL
Demeton	8065-48-3	1.5	PRG
Diazinon	333-41-5	33	PRG
Dibenz(a,h)anthracene	53-70-3	0.0092	PRG
Dibenzofuran	132-64-9	24	PRG
Dibromochloromethane	124-48-1	0.13	PRG
Dibromochloropropane	96-12-8	0.2	MCL
Dibromomethane	74-95-3	61	PRG
Dicamba	1918-00-9	1,100	PRG

APPENDIX A

GROUNDWATER ACTION LEVELS  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
(Page 4 of 6)

Analyte	CAS Number	Action Level (µg/L)	Source
Dichlorodifluoromethane	75-71-8	390	PRG
Dichlorvos	62-73-7	0.23	PRG
Dieldrin	60-57-1	0.0042	PRG
Diethyl phthalate	84-66-2	29,000	PRG
Dimethyl phthalate	131-11-3	360,000	PRG
Di-n-butyl phthalate	84-74-2	3,600	PRG
Di-n-octyl phthalate	117-84-0	1,500	PRG
Dinoseb	88-85-7	7	MCL
Diphenylamine	122-39-4	910	PRG
Disyston (Disulfoton)	298-04-4	1.5	PRG
Dursban (Chlorpyrifos)	2921-88-2	110	PRG
Endosulfan I	959-98-8	220	PRG
Endosulfan II	33213-65-9	220	PRG
Endrin	72-20-8	2	MCL
Ethylbenzene	100-41-4	700	MCL
Fluoranthene	206-44-0	1,500	PRG
Fluorene	86-73-7	240	PRG
Fluoride	16984-48-8	4,000	MCL
gamma-BHC (Lindane)	58-89-9	0.2	MCL
gamma-Chlordane	5103-71-9	0.052	PRG
Heptachlor	76-44-8	0.4	MCL
Heptachlor epoxide	1024-57-3	0.2	MCL
Hexachlorobenzene	118-74-1	1	MCL
Hexachlorobutadiene	87-68-3	0.86	PRG
Hexachlorocyclopentadiene	77-47-4	50	MCL
Hexachloroethane	67-72-1	4.8	PRG
HMX	2691-41-0	1,800	PRG
Indeno(1,2,3-c,d)pyrene	193-39-5	0.092	PRG
Iron	7439-89-6	300	MCL
Isophorone	78-59-1	71	PRG
Isopropylbenzene (Cumene)	98-82-8	660	PRG
Lead	7439-92-1	15	USEPA Action Level <sup>d</sup>
Lead	7439-92-1	4	PRG
Lead, Dissolved	7439-92-1d	15	MCL
MCPA	94-74-6	18	PRG
MCPD	93-65-2	36	PRG
Mercury	7439-97-6	2	MCL
Mercury, Dissolved	7439-97-6d	2	MCL
Merphos	150-50-5	1.1	PRG
Methoxychlor	72-43-5	40	MCL

## APPENDIX A

**GROUNDWATER ACTION LEVELS**  
**HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA**  
 (Page 5 of 6)

Analyte	CAS Number	Action Level (µg/L)	Source
Methyl parathion	298-00-0	9.1	PRG
Methylene Chloride	75-09-2	5	MCL
MTBE	1634-04-4	13	PRG
Naled	300-76-5	73	PRG
Naphthalene	91-20-3	6.2	PRG
Nitrate as N	14797-55-8	10,000	MCL
Nitrate plus Nitrite as N	TT011	10,000	MCL
Nitrite as N	14797-65-0	1,000	MCL
Nitrobenzene	98-95-3	3.4	PRG
N-Nitrosodimethylamine	62-75-9	0.0013	PRG
N-Nitroso-di-n-butylamine	924-16-3	0.002	PRG
N-Nitroso-di-n-propylamine	621-64-7	0.0096	PRG
N-Nitrosodiphenylamine	86-30-6	14	PRG
n-Butylbenzene	104-51-8	240	PRG
n-Propylbenzene	103-65-1	240	PRG
o-Xylene	95-47-6	10,000	MCL
Pentachlorobenzene	608-93-5	29	PRG
Pentachloronitrobenzene	82-86-8	0.26	PRG
Pentachlorophenol	87-86-5	1	MCL
Phenol	108-95-2	22,000	PRG
Phorate (Thimet)	298-02-2	7.3	PRG
Picric Acid as Ammonium Picrate	88-89-1	1	Action level <sup>c</sup>
Pronamide	23950-58-5	2,700	PRG
Pyrene	129-00-0	180	PRG
RDX	121-82-4	0.61	PRG
Ronnel	299-84-3	1,800	PRG
sec-Butylbenzene	135-98-8	240	PRG
Selenium	7782-49-2	50	MCL
Selenium, Dissolved	7782-49-2d	50	MCL
Silver	7440-22-4d	180	PRG
Silver, Dissolved	7440-22-4	100	MCL
Styrene	100-42-5	100	MCL
Sulfate	14808-79-8	400,000	MCL
tert-Butylbenzene	98-06-6	240	PRG
Tetrachloroethene	127-18-4	5	MCL
Tetrachlorvinphos	961-11-5	2.8	PRG
Tetryl	479-54-8	360	PRG
Toluene	108-88-3	1,000	MCL

**APPENDIX A**

**GROUNDWATER ACTION LEVELS  
HAWTHORNE ARMY DEPOT, HAWTHORNE, NEVADA  
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<b>Analyte</b>	<b>CAS Number</b>	<b>Action Level (µg/L)</b>	<b>Source</b>
Total Dissolved Solids	10-33-3	500,000	MCL
Total Xylenes	1330-20-7	10,000	MCL
Toxaphene	8001-35-2	3	MCL
trans-1,2-Dichloroethene	156-60-5	100	MCL
trans-1,3-Dichloropropene	10061-02-6	0.4	PRG
Trichloroethene	79-01-6	5	MCL
Trichlorofluoromethane	75-69-4	1,300	PRG
Vinyl acetate	108-05-4	410	PRG
Vinyl chloride	75-01-4	2	MCL

Notes:

- <sup>a</sup> PRG = USEPA Region IX preliminary remediation goal (PRG) for tap water (USEPA, 1998)
- <sup>b</sup> MCL = USEPA primary maximum contaminant level (MCL) for drinking water (USEPA, Title 40 CFR, Part 141, Subpart G)
- <sup>c</sup> PRG for Dinitrotoluene mixture
- <sup>d</sup> USEPA recommended action level for lead, no MCL established
- <sup>e</sup> Action level for picric acid as ammonium picrate determined based on toxicology study by US Agency for Toxic Substances and Disease Registry performed for NDEP.

**APPENDIX B**

**ENVIRONMENTAL PROTECTION AGENCY LOW-FLOW  
PURGING AND SAMPLING PROCEDURES**

## ENVIRONMENTAL PROTECTION AGENCY LOW-FLOW PURGING AND SAMPLING PROCEDURES

Purging and sampling is performed using rented Sample Pro® bladder pumps. Sample Pro® bladder pumps are made out of stainless steel, are 18 inches long, and have an outside diameter of 1.66 inches. Each pump is set up with a 0.17-inch inside diameter airline and a 0.17-inch inside diameter water discharge line. These two hoses connect to the top of the pump and run the length of the well to the top of the well casing. Each pump is set in the well with the pump intake suspended in the middle of the well screen or in the middle of the wetted screen, if the entire well screen is not submerged.

The Sample Pro® bladder pumps operate by timed on/off cycles of compressed air (nitrogen) alternately squeezing the flexible bladder to displace water out of the pump, and releasing it to allow the pump to refill under ambient hydrostatic head, without creating any disturbance that could affect sample chemistry. The bladder prevents contact between the compressed air and the sample. The pump is thoroughly decontaminated after each use and the bladder is replaced. The tubing is dedicated to each well, so both the samples and the well are protected from cross-well contamination.

Advantages of using low-flow purging and sampling procedures include:

- Samples that are representative of the mobile load of contaminants present (dissolved and colloid-associated);
- Minimal disturbance of the sampling point, thereby minimizing sampling artifacts;
- Less operator variability, greater operator control;
- Reduced hydraulic stress on the formation (minimal drawdown);
- Less mixing of stagnant casing water with formation water;
- Smaller purging volume, which decreases waste disposal volume and costs, and sampling time; and
- Better sample consistency; reduced artificial sample variability.

Tetra Tech is using the Micro Purge Basics™ MP10 Digital Controller during low-flow purging and sampling. The nitrogen cylinder connects to a pressure regulator, which is connected to the control box. The controller is then connected to the end of the airline at the top of the well. The water discharge line is connected to a flow-through cell attached to a water quality meter. The amount of water needed to be purged before collection of water quality parameters is calculated using the following equation:

A = Length of water tubing from the pump to the outlet

B = 5.3 (Milliliters of water in each foot of 0.17-inch ID discharge tubing)

C = 130 milliliters (capacity of bladder)

$A \times B + C = \text{Purge volume}$

After the required purge volume is purged, an initial water quality reading is collected. Following the low-flow purging procedures, water quality parameters are then collected at five-minute intervals. Stabilization is considered achieved after a minimum of six consecutive readings, spaced five minutes apart, were within  $\pm 0.2$  for pH,  $\pm 3$  percent for conductivity,  $\pm 0.2$  for dissolved oxygen,  $\pm 10$  percent for turbidity, and  $\pm 2$  degrees Celsius for temperature. A purge rate of less than 0.5 liters per minute is optimal.



# Ground Water Issue

## LOW-FLOW (MINIMAL DRAWDOWN) GROUND-WATER SAMPLING PROCEDURES

by Robert W. Puls<sup>1</sup> and Michael J. Barcelona<sup>2</sup>

### Background

The Regional Superfund Ground Water Forum is a group of ground-water scientists, representing EPA's Regional Superfund Offices, organized to exchange information related to ground-water remediation at Superfund sites. One of the major concerns of the Forum is the sampling of ground water to support site assessment and remedial performance monitoring objectives. This paper is intended to provide background information on the development of low-flow sampling procedures and its application under a variety of hydrogeologic settings. It is hoped that the paper will support the production of standard operating procedures for use by EPA Regional personnel and other environmental professionals engaged in ground-water sampling.

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### I. Introduction

The methods and objectives of ground-water sampling to assess water quality have evolved over time. Initially the emphasis was on the assessment of water quality of aquifers as sources of drinking water. Large water-bearing

units were identified and sampled in keeping with that objective. These were highly productive aquifers that supplied drinking water via private wells or through public water supply systems. Gradually, with the increasing awareness of subsurface pollution of these water resources, the understanding of complex hydrogeochemical processes which govern the fate and transport of contaminants in the subsurface increased. This increase in understanding was also due to advances in a number of scientific disciplines and improvements in tools used for site characterization and ground-water sampling. Ground-water quality investigations where pollution was detected initially borrowed ideas, methods, and materials for site characterization from the water supply field and water analysis from public health practices. This included the materials and manner in which monitoring wells were installed and the way in which water was brought to the surface, treated, preserved and analyzed. The prevailing conceptual ideas included convenient generalizations of ground-water resources in terms of large and relatively homogeneous hydrologic *units*. With time it became apparent that conventional water supply generalizations of *homogeneity* did not adequately represent field data regarding pollution of these subsurface resources. The important role of *heterogeneity* became increasingly clear not only in geologic terms, but also in terms of complex physical,

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Director

chemical and biological subsurface processes. With greater appreciation of the role of heterogeneity, it became evident that subsurface pollution was ubiquitous and encompassed the unsaturated zone to the deep subsurface and included unconsolidated sediments, fractured rock, and *aquifers* or low-yielding or impermeable formations. Small-scale processes and heterogeneities were shown to be important in identifying contaminant distributions and in controlling water and contaminant flow paths.

It is beyond the scope of this paper to summarize all the advances in the field of ground-water quality investigations and remediation, but two particular issues have bearing on ground-water sampling today: aquifer heterogeneity and colloidal transport. Aquifer heterogeneities affect contaminant flow paths and include variations in geology, geochemistry, hydrology and microbiology. As methods and the tools available for subsurface investigations have become increasingly sophisticated and understanding of the subsurface environment has advanced, there is an awareness that in most cases a primary concern for site investigations is characterization of contaminant flow paths rather than entire aquifers. In fact, in many cases, plume thickness can be less than well screen lengths (e.g., 3-6 m) typically installed at hazardous waste sites to detect and monitor plume movement over time. Small-scale differences have increasingly been shown to be important and there is a general trend toward smaller diameter wells and shorter screens.

The hydrogeochemical significance of colloidal-size particles in subsurface systems has been realized during the past several years (Gschwend and Reynolds, 1987; McCarthy and Zachara, 1989; Puls, 1990; Ryan and Gschwend, 1990). This realization resulted from both field and laboratory studies that showed faster contaminant migration over greater distances and at higher concentrations than flow and transport model predictions would suggest (Buddemeier and Hunt, 1988; Enfield and Bengtsson, 1988; Penrose et al., 1990). Such models typically account for interaction between the mobile aqueous and immobile solid phases, but do not allow for a mobile, reactive solid phase. It is recognition of this third *phase* as a possible means of contaminant transport that has brought increasing attention to the manner in which samples are collected and processed for analysis (Puts et al., 1990; McCarthy and Degueudre, 1993; Backhus et al., 1993; U. S. EPA, 1995). If such a phase is present in sufficient mass, possesses high sorption reactivity, large surface area, and remains stable in suspension, it can serve as an important mechanism to facilitate contaminant transport in many types of subsurface systems.

Colloids are particles that are sufficiently small so that the surface free energy of the particle dominates the bulk free energy. Typically, in ground water, this includes particles with diameters between 1 and 1000 nm. The most commonly observed mobile particles include: secondary clay minerals; hydrous iron, aluminum, and manganese oxides; dissolved and particulate organic materials, and viruses and bacteria.

These reactive particles have been shown to be mobile under a variety of conditions in both field studies and laboratory column experiments, and as such need to be included in monitoring programs where identification of the *total* mobile contaminant loading (dissolved + naturally suspended particles) at a site is an objective. To that end, sampling methodologies must be used which do not artificially bias *naturally* suspended particle concentrations.

Currently the most common ground-water purging and sampling methodology is to purge a well using bailers or high speed pumps to remove 3 to 5 casing volumes followed by sample collection. This method can cause adverse impacts on sample quality through collection of samples with high levels of turbidity. This results in the inclusion of otherwise immobile artificial particles which produce an overestimation of certain analytes of interest (e.g., metals or hydrophobic organic compounds). Numerous documented problems associated with filtration (Danielsson, 1982; Laxen and Chandler, 1982; Horowitz et al., 1992) make this an undesirable method of rectifying the turbidity problem, and include the removal of potentially mobile (contaminant-associated) particles during filtration, thus artificially biasing contaminant concentrations low. Sampling-induced turbidity problems can often be mitigated by using low-flow purging and sampling techniques.

Current subsurface conceptual models have undergone considerable refinement due to the recent development and increased use of field screening tools. So-called hydraulic *push* technologies (e.g., cone penetrometer, Geoprobe®, QED Hydro Punch®) enable relatively fast screening site characterization which can then be used to design and install a monitoring well network. Indeed, alternatives to conventional monitoring wells are now being considered for some hydrogeologic settings. The ultimate design of any monitoring system should however be based upon adequate site characterization and be consistent with established monitoring objectives.

If the sampling program objectives include accurate assessment of the magnitude and extent of subsurface contamination over time and/or accurate assessment of subsequent remedial performance, then some information regarding plume delineation in three-dimensional space is necessary prior to monitoring well network design and installation. This can be accomplished with a variety of different tools and equipment ranging from hand-operated augers to screening tools mentioned above and large drilling rigs. Detailed information on ground-water flow velocity, direction, and horizontal and vertical variability are essential baseline data requirements. Detailed soil and geologic data are required prior to and during the installation of sampling points. This includes historical as well as detailed soil and geologic logs which accumulate during the site investigation. The use of borehole geophysical techniques is also recommended. With this information (together with other site characterization data) and a clear understanding of sampling

objectives, then appropriate location, screen length, well diameter, slot size, etc. for the monitoring well network can be decided. This is especially critical for new in situ remedial approaches or natural attenuation assessments at hazardous waste sites.

In general, the overall goal of any ground-water sampling program is to collect water samples with no alteration in water chemistry; analytical data thus obtained may be used for a variety of specific monitoring programs depending on the regulatory requirements. The sampling methodology described in this paper assumes that the monitoring goal is to sample monitoring wells for the presence of contaminants and it is applicable whether mobile colloids are a concern or not and whether the analytes of concern are metals (and metalloids) or organic compounds.

## II. Monitoring Objectives and Design Considerations

The following issues are important to consider prior to the design and implementation of any ground-water monitoring program, including those which anticipate using low-flow purging and sampling procedures.

### A. Data Quality Objectives (DQOs)

Monitoring objectives include four main types: detection, assessment, corrective-action evaluation and resource evaluation, along with *hybrid* variations such as site assessments for property transfers and water availability investigations. Monitoring objectives may change as contamination or water quality problems are discovered. However, there are a number of common components of monitoring programs which should be recognized as important regardless of initial objectives. These components include:

- 1) Development of a conceptual model that incorporates elements of the regional geology to the local geologic framework. The conceptual model development also includes initial site characterization efforts to identify hydrostratigraphic units and likely flow-paths using a minimum number of borings and well completions;
- 2) Cost-effective and well documented collection of high quality data utilizing simple, accurate, and reproducible techniques; and
- 3) Refinement of the conceptual model based on supplementary data collection and analysis.

These fundamental components serve many types of monitoring programs and provide a basis for future efforts that evolve in complexity and level of spatial detail as purposes and objectives expand. High quality, reproducible data collection is a common goal regardless of program objectives.

High quality data collection implies data of sufficient accuracy, precision, and completeness (i.e., ratio of valid analytical results to the minimum sample number called for by the program design) to meet the program objectives. Accuracy depends on the correct choice of monitoring tools and procedures to minimize sample and subsurface disturbance from collection to analysis. Precision depends on the repeatability of sampling and analytical protocols. It can be assured or improved by replication of sample analyses including blanks, field/lab standards and reference standards.

### B. Sample Representativeness

An important goal of any monitoring program is collection of data that is truly representative of conditions at the site. The term *representativeness* applies to chemical and hydrogeologic data collected via wells, borings, piezometers, geophysical and soil gas measurements, lysimeters, and temporary sampling points. It involves a recognition of the statistical variability of individual subsurface physical properties, and contaminant or major ion concentration levels, while explaining extreme values. Subsurface temporal and spatial variability are facts. Good professional practice seeks to maximize representativeness by using proven accurate and reproducible techniques to define limits on the distribution of measurements collected at a site. However, measures of representativeness are dynamic and are controlled by evolving site characterization and monitoring objectives. An evolutionary site characterization model, as shown in Figure 1, provides a systematic approach to the goal of consistent data collection.

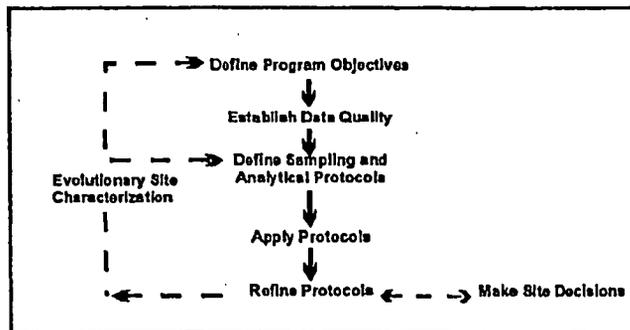


Figure 1. Evolutionary Site Characterization Model

The model emphasizes a recognition of the causes of the variability (e.g., use of inappropriate technology such as using bailers to purge wells; imprecise or operator-dependent methods) and the need to control avoidable errors.

## 1) Questions of Scale

A sampling plan designed to collect representative samples must take into account the potential scale of changes in site conditions through space and time as well as the chemical associations and behavior of the parameters that are targeted for investigation. In subsurface systems, physical (i.e., aquifer) and chemical properties over time or space are not statistically independent. In fact, samples taken in close proximity (i.e., within distances of a few meters) or within short time periods (i.e., more frequently than monthly) are highly auto-correlated. This means that designs employing high-sampling frequency (e.g., monthly) or dense spatial monitoring designs run the risk of redundant data collection and misleading inferences regarding trends in values that aren't statistically valid. In practice, contaminant detection and assessment monitoring programs rarely suffer these *over-sampling* concerns. In corrective-action evaluation programs, it is also possible that too little data may be collected over space or time. In these cases, false interpretation of the spatial extent of contamination or underestimation of temporal concentration variability may result.

## 2) Target Parameters

Parameter selection in monitoring program design is most often dictated by the regulatory status of the site. However, background water quality constituents, purging indicator parameters, and contaminants, all represent targets for data collection programs. The tools and procedures used in these programs should be equally rigorous and applicable to all categories of data, since all may be needed to determine or support regulatory action.

### C. Sampling Point Design and Construction

Detailed site characterization is central to all decision-making purposes and the basis for this characterization resides in identification of the geologic framework and major hydro-stratigraphic units. Fundamental data for sample point location include: subsurface lithology, head-differences and background geochemical conditions. Each sampling point has a proper use or uses which should be documented at a level which is appropriate for the program's data quality objectives. Individual sampling points may not always be able to fulfill multiple monitoring objectives (e.g., detection, assessment, corrective action).

#### 1) Compatibility with Monitoring Program and Data Quality Objectives

Specifics of sampling point location and design will be dictated by the complexity of subsurface lithology and variability in contaminant and/or geochemical conditions. It should be noted that, regardless of the ground-water sampling approach, few sampling points (e.g., wells, drive-points, screened

augers) have zones of influence in excess of a few feet. Therefore, the spatial frequency of sampling points should be carefully selected and designed.

#### 2) Flexibility of Sampling Point Design

In most cases *well-point* diameters in excess of 1 7/8 inches will permit the use of most types of submersible pumping devices for low-flow (minimal drawdown) sampling. It is suggested that *short* (e.g., less than 1.6 m) screens be incorporated into the monitoring design where possible so that comparable results from one device to another might be expected. *Short*, of course, is relative to the degree of vertical water quality variability expected at a site.

#### 3) Equilibration of Sampling Point

Time should be allowed for equilibration of the well or sampling point with the formation after installation. Placement of well or sampling points in the subsurface produces some disturbance of ambient conditions. Drilling techniques (e.g., auger, rotary, etc.) are generally considered to cause more disturbance than *direct push* technologies. In either case, there may be a period (i.e., days to months) during which water quality near the point may be distinctly different from that in the formation. Proper development of the sampling point and adjacent formation to remove fines created during emplacement will shorten this water quality *recovery* period.

### III. Definition of Low-Flow Purging and Sampling

It is generally accepted that water in the well casing is non-representative of the formation water and needs to be purged prior to collection of ground-water samples. However, the water in the screened interval may indeed be representative of the formation, depending upon well construction and site hydrogeology. Wells are purged to some extent for the following reasons: the presence of the air interface at the top of the water column resulting in an oxygen concentration gradient with depth, loss of volatiles up the water column, leaching from or sorption to the casing or filter pack, chemical changes due to clay seals or backfill, and surface infiltration.

Low-flow purging, whether using portable or dedicated systems, should be done using pump-intake located in the middle or slightly above the middle of the screened interval. Placement of the pump too close to the bottom of the well will cause increased entrainment of solids which have collected in the well over time. These particles are present as a result of well development, prior purging and sampling events, and natural colloidal transport and deposition. Therefore, placement of the pump in the middle or toward the top of the screened interval is suggested. Placement of the pump at the top of the water column for sampling is only recommended in unconfined aquifers, screened across the water table, where this is the desired sampling point. Low-

flow purging has the advantage of minimizing mixing between the overlying stagnant casing water and water within the screened interval.

### **A. Low-Flow Purging and Sampling**

Low-flow refers to the velocity with which water enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. It does not necessarily refer to the flow rate of water discharged at the surface which can be affected by flow regulators or restrictions. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system to the extent practical taking into account established site sampling objectives. Typically, flow rates on the order of 0.1 - 0.5 L/min are used, however this is dependent on site-specific hydrogeology. Some extremely coarse-textured formations have been successfully sampled in this manner at flow rates to 1 L/min. The effectiveness of using low-flow purging is intimately linked with proper screen location, screen length, and well construction and development techniques. The reestablishment of natural flow paths in both the vertical and horizontal directions is important for correct interpretation of the data. For high resolution sampling needs, screens less than 1 m should be used. Most of the need for purging has been found to be due to passing the sampling device through the overlying casing water which causes mixing of these stagnant waters and the dynamic waters within the screened interval. Additionally, there is disturbance to suspended sediment collected in the bottom of the casing and the displacement of water out into the formation immediately adjacent to the well screen. These disturbances and impacts can be avoided using dedicated sampling equipment, which precludes the need to insert the sampling device prior to purging and sampling.

Isolation of the screened interval water from the overlying stagnant casing water may be accomplished using low-flow minimal drawdown techniques. If the pump intake is located within the screened interval, most of the water pumped will be drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone. However, if the wells are not constructed and developed properly, zones other than those intended may be sampled. At some sites where geologic heterogeneities are sufficiently different within the screened interval, higher conductivity zones may be preferentially sampled. This is another reason to use shorter screened intervals, especially where high spatial resolution is a sampling objective.

### **B. Water Quality Indicator Parameters**

It is recommended that water quality indicator parameters be used to determine purging needs prior to sample collection in each well. Stabilization of parameters such as pH, specific conductance, dissolved oxygen,

oxidation-reduction potential, temperature and turbidity should be used to determine when formation water is accessed during purging. In general, the order of stabilization is pH, temperature, and specific conductance, followed by oxidation reduction potential, dissolved oxygen and turbidity. Temperature and pH, while commonly used as purging indicators, are actually quite insensitive in distinguishing between formation water and stagnant casing water; nevertheless, these are important parameters for data interpretation purposes and should also be measured. Performance criteria for determination of stabilization should be based on water-level drawdown, pumping rate and equipment specifications for measuring indicator parameters. Instruments are available which utilize in-line flow cells to continuously measure the above parameters.

It is important to establish specific well stabilization criteria and then consistently follow the same methods thereafter, particularly with respect to drawdown, flow rate and sampling device. Generally, the time or purge volume required for parameter stabilization is independent of well depth or well volumes. Dependent variables are well diameter, sampling device, hydrogeochemistry, pump flow rate, and whether the devices are used in a portable or dedicated manner. If the sampling device is already in place (i.e., dedicated sampling systems), then the time and purge volume needed for stabilization is much shorter. Other advantages of dedicated equipment include less purge water for waste disposal, much less decontamination of equipment, less time spent in preparation of sampling as well as time in the field, and more consistency in the sampling approach which probably will translate into less variability in sampling results. The use of dedicated equipment is strongly recommended at wells which will undergo routine sampling over time.

If parameter stabilization criteria are too stringent, then minor oscillations in indicator parameters may cause purging operations to become unnecessarily protracted. It should also be noted that turbidity is a very conservative parameter in terms of stabilization. Turbidity is always the last parameter to stabilize. Excessive purge times are invariably related to the establishment of too stringent turbidity stabilization criteria. It should be noted that natural turbidity levels in ground water may exceed 10 nephelometric turbidity units (NTU).

### **C. Advantages and Disadvantages of Low-Flow (Minimum Drawdown) Purging**

In general, the advantages of low-flow purging include:

- samples which are representative of the *mobile* load of contaminants present (dissolved and colloid-associated);
- minimal disturbance of the sampling point thereby minimizing sampling artifacts;
- less operator variability, greater operator control;

- reduced stress on the formation (minimal drawdown);
- less mixing of stagnant casing water with formation water;
- reduced need for filtration and, therefore, less time required for sampling;
- smaller purging volume which decreases waste disposal costs and sampling time;
- better sample consistency; reduced artificial sample variability.

Some disadvantages of low-flow purging are:

- higher initial capital costs,
- greater set-up time in the field,
- need to transport additional equipment to and from the site,
- increased training needs,
- resistance to change on the part of sampling practitioners,
- concern that new data will indicate a *change in conditions* and trigger an *action*.

#### IV. Low-Flow (Minimal Drawdown) Sampling Protocols

The following ground-water sampling procedure has evolved over many years of experience in ground-water sampling for organic and inorganic compound determinations and as such summarizes the authors' (and others) experiences to date (Barcelona et al., 1984, 1994; Barcelona and Helfrich, 1986; Puls and Barcelona, 1989; Puls et al. 1990, 1992; Puls and Powell, 1992; Puls and Paul, 1995). High-quality chemical data collection is essential in ground-water monitoring and site characterization. The primary limitations to the collection of *representative* ground-water samples include: mixing of the stagnant casing and *fresh* screen waters during insertion of the sampling device or ground-water level measurement device; disturbance and resuspension of settled solids at the bottom of the well when using high pumping rates or raising and lowering a pump or bailer; introduction of atmospheric gases or degassing from the water during sample handling and transfer, or inappropriate use of vacuum sampling device, etc.

##### A. Sampling Recommendations

Water samples should not be taken immediately following well development. Sufficient time should be allowed for the ground-water flow regime in the vicinity of the monitoring well to stabilize and to approach chemical equilibrium with the well construction materials. This lag time will depend on site conditions and methods of installation but often exceeds one week.

Well purging is nearly always necessary to obtain samples of water flowing through the geologic formations in the screened interval. Rather than using a general but arbitrary

guideline of purging three casing volumes prior to sampling, it is recommended that an in-line water quality measurement device (e.g., flow-through cell) be used to establish the stabilization time for several parameters (e.g., pH, specific conductance, redox, dissolved oxygen, turbidity) on a well-specific basis. Data on pumping rate, drawdown, and volume required for parameter stabilization can be used as a guide for conducting subsequent sampling activities.

The following are recommendations to be considered before, during and after sampling:

- use low-flow rates (<0.5 L/min), during both purging and sampling to maintain minimal drawdown in the well;
- maximize tubing wall thickness, minimize tubing length;
- place the sampling device intake at the desired sampling point;
- minimize disturbances of the stagnant water column above the screened interval during water level measurement and sampling device insertion;
- make proper adjustments to stabilize the flow rate as soon as possible;
- monitor water quality indicators during purging;
- collect unfiltered samples to estimate contaminant loading and transport potential in the subsurface system.

##### B. Equipment Calibration

Prior to sampling, all sampling device and monitoring equipment should be calibrated according to manufacturer's recommendations and the site Quality Assurance Project Plan (QAPP) and Field Sampling Plan (FSP). Calibration of pH should be performed with at least two buffers which bracket the expected range. Dissolved oxygen calibration must be corrected for local barometric pressure readings and elevation.

##### C. Water Level Measurement and Monitoring

It is recommended that a device be used which will least disturb the water surface in the casing. Well depth should be obtained from the well logs. Measuring to the bottom of the well casing will only cause resuspension of settled solids from the formation and require longer purging times for turbidity equilibration. Measure well depth after sampling is completed. The water level measurement should be taken from a permanent reference point which is surveyed relative to ground elevation.

##### D. Pump Type

The use of low-flow (e.g., 0.1-0.5 L/min) pumps is suggested for purging and sampling all types of analytes. All pumps have some limitation and these should be investigated with respect to application at a particular site. Bailers are inappropriate devices for low-flow sampling.

## 1) General Considerations

There are no unusual requirements for ground-water sampling devices when using low-flow, minimal drawdown techniques. The major concern is that the device give consistent results and minimal disturbance of the sample across a range of low flow rates (i.e., < 0.5 L/min). Clearly, pumping rates that cause minimal to no drawdown in one well could easily cause *significant* drawdown in another well finished in a less transmissive formation. In this sense, the pump should not cause undue pressure or temperature changes or physical disturbance on the water sample over a reasonable sampling range. Consistency in operation is critical to meet accuracy and precision goals.

## 2) Advantages and Disadvantages of Sampling Devices

A variety of sampling devices are available for low-flow (minimal drawdown) purging and sampling and include peristaltic pumps, bladder pumps, electrical submersible pumps, and gas-driven pumps. Devices which lend themselves to both dedication and consistent operation at definable low-flow rates are preferred. It is desirable that the pump be easily adjustable and operate reliably at these lower flow rates. The peristaltic pump is limited to shallow applications and can cause degassing resulting in alteration of pH, alkalinity, and some volatiles loss. Gas-driven pumps should be of a type that does not allow the gas to be in direct contact with the sampled fluid.

Clearly, bailers and other *grab* type samplers are ill-suited for low-flow sampling since they will cause repeated disturbance and mixing of *stagnant* water in the casing and the *dynamic* water in the screened interval. Similarly, the use of inertial lift foot-valve type samplers may cause too much disturbance at the point of sampling. Use of these devices also tends to introduce uncontrolled and unacceptable operator variability.

Summaries of advantages and disadvantages of various sampling devices are listed in Herzog et al. (1991), U. S. EPA (1992), Parker (1994) and Thurnblad (1994).

## E. Pump Installation

Dedicated sampling devices (left in the well) capable of pumping and sampling are preferred over any other type of device. Any portable sampling device should be slowly and carefully lowered to the middle of the screened interval or slightly above the middle (e.g., 1-1.5 m below the top of a 3 m screen). This is to minimize excessive mixing of the stagnant water in the casing above the screen with the screened interval zone water, and to minimize resuspension of solids which will have collected at the bottom of the well. These two disturbance effects have been shown to directly affect the time required for purging. There also appears to be a direct correlation between size of portable sampling devices relative to the well bore and resulting purge volumes and times. The key is to minimize disturbance of water and solids in the well casing.

## F. Filtration

Decisions to filter samples should be dictated by sampling objectives rather than as a *fix* for poor sampling practices, and field-filtering of certain constituents should not be the default. Consideration should be given as to what the application of field-filtration is trying to accomplish. For assessment of truly dissolved (as opposed to operationally *dissolved* [i.e., samples filtered with 0.45 µm filters]) concentrations of major ions and trace metals, 0.1 µm filters are recommended although 0.45 µm filters are normally used for most regulatory programs. Alkalinity samples must also be filtered if significant particulate calcium carbonate is suspected, since this material is likely to impact alkalinity titration results (although filtration itself may alter the CO<sub>2</sub> composition of the sample and, therefore, affect the results).

Although filtration may be appropriate, filtration of a sample may cause a number of unintended changes to occur (e.g. oxidation, aeration) possibly leading to filtration-induced artifacts during sample analysis and uncertainty in the results. Some of these unintended changes may be unavoidable but the factors leading to them must be recognized. Deleterious effects can be minimized by consistent application of certain filtration guidelines. Guidelines should address selection of filter type, media, pore size, etc. In order to identify and minimize potential sources of uncertainty when filtering samples.

In-line filtration is recommended because it provides better consistency through less sample handling, and minimizes sample exposure to the atmosphere. In-line filters are available in both disposable (barrel filters) and non-disposable (in-line filter holder, flat membrane filters) formats and various filter pore sizes (0.1-5.0 µm). Disposable filter cartridges have the advantage of greater sediment handling capacity when compared to traditional membrane filters. Filters must be pre-rinsed following manufacturer's recommendations. If there are no recommendations for rinsing, pass through a minimum of 1 L of ground water following purging and prior to sampling. Once filtration has begun, a filter cake may develop as particles larger than the pore size accumulate on the filter membrane. The result is that the effective pore diameter of the membrane is reduced and particles smaller than the stated pore size are excluded from the filtrate. Possible corrective measures include prefiltering (with larger pore size filters), minimizing particle loads to begin with, and reducing sample volume.

## G. Monitoring of Water Level and Water Quality Indicator Parameters

Check water level periodically to monitor drawdown in the well as a guide to flow rate adjustment. The goal is minimal drawdown (<0.1 m) during purging. This goal may be difficult to achieve under some circumstances due to geologic heterogeneities within the screened interval, and may require adjustment based on site-specific conditions and personal experience. In-line water quality indicator parameters should be continuously monitored during purging. The water quality

indicator parameters monitored can include pH, redox potential, conductivity, dissolved oxygen (DO) and turbidity. The last three parameters are often most sensitive. Pumping rate, drawdown, and the time or volume required to obtain stabilization of parameter readings can be used as a future guide to purge the well. Measurements should be taken every three to five minutes if the above suggested rates are used. Stabilization is achieved after all parameters have stabilized for three successive readings. In lieu of measuring all five parameters, a minimum subset would include pH, conductivity, and turbidity or DO. Three successive readings should be within  $\pm 0.1$  for pH,  $\pm 3\%$  for conductivity,  $\pm 10$  mv for redox potential, and  $\pm 10\%$  for turbidity and DO. Stabilized purge indicator parameter trends are generally obvious and follow either an exponential or asymptotic change to stable values during purging. Dissolved oxygen and turbidity usually require the longest time for stabilization. The above stabilization guidelines are provided for rough estimates based on experience.

#### **H. Sampling, Sample Containers, Preservation and Decontamination**

Upon parameter stabilization, sampling can be initiated. If an in-line device is used to monitor water quality parameters, it should be disconnected or bypassed during sample collection. Sampling flow rate may remain at established purge rate or may be adjusted slightly to minimize aeration, bubble formation, turbulent filling of sample bottles, or loss of volatiles due to extended residence time in tubing. Typically, flow rates less than 0.5 L/min are appropriate. The same device should be used for sampling as was used for purging. Sampling should occur in a progression from least to most contaminated well, if this is known. Generally, volatile (e.g., solvents and fuel constituents) and gas sensitive (e.g.,  $\text{Fe}^{2+}$ ,  $\text{CH}_4$ ,  $\text{H}_2\text{S}/\text{HS}^-$ , alkalinity) parameters should be sampled first. The sequence in which samples for most inorganic parameters are collected is immaterial unless filtered (dissolved) samples are desired. Filtering should be done last and in-line filters should be used as discussed above. During both well purging and sampling, proper protective clothing and equipment must be used based upon the type and level of contaminants present.

The appropriate sample container will be prepared in advance of actual sample collection for the analytes of interest and include sample preservative where necessary. Water samples should be collected directly into this container from the pump tubing.

Immediately after a sample bottle has been filled, it must be preserved as specified in the site (QAPP). Sample preservation requirements are based on the analyses being performed (use site QAPP, FSP, RCRA guidance document [U. S. EPA, 1992] or EPA SW-846 [U. S. EPA, 1982]). It may be advisable to add preservatives to sample bottles in a controlled setting prior to entering the field in order to reduce the chances of improperly preserving sample bottles or introducing field

contaminants into a sample bottle while adding the preservatives.

The preservatives should be transferred from the chemical bottle to the sample container using a disposable polyethylene pipet and the disposable pipet should be used only once and then discarded.

After a sample container has been filled with ground water, a Teflon™ (or tin)-lined cap is screwed on tightly to prevent the container from leaking. A sample label is filled out as specified in the FSP. The samples should be stored inverted at 4°C.

Specific decontamination protocols for sampling devices are dependent to some extent on the type of device used and the type of contaminants encountered. Refer to the site QAPP and FSP for specific requirements.

#### **I. Blanks**

The following blanks should be collected:

- (1) field blank: one field blank should be collected from each source water (distilled/deionized water) used for sampling equipment decontamination or for assisting well development procedures.
- (2) equipment blank: one equipment blank should be taken prior to the commencement of field work, from each set of sampling equipment to be used for that day. Refer to site QAPP or FSP for specific requirements.
- (3) trip blank: a trip blank is required to accompany each volatile sample shipment. These blanks are prepared in the laboratory by filling a 40-mL volatile organic analysis (VOA) bottle with distilled/deionized water.

#### **V. Low-Permeability Formations and Fractured Rock**

The overall sampling program goals or sampling objectives will drive how the sampling points are located, installed, and choice of sampling device. Likewise, site-specific hydrogeologic factors will affect these decisions. Sites with very low permeability formations or fractures causing discrete flow channels may require a unique monitoring approach. Unlike water supply wells, wells installed for ground-water quality assessment and restoration programs are often installed in low water-yielding settings (e.g., clays, silts). Alternative types of sampling points and sampling methods are often needed in these types of environments, because low-permeability settings may require extremely low-flow purging (<0.1 L/min) and may be technology-limited. Where devices are not readily available to pump at such low flow rates, the primary consideration is to avoid dewatering of

the well screen. This may require repeated recovery of the water during purging while leaving the pump in place within the well screen.

Use of low-flow techniques may be impractical in these settings, depending upon the water recharge rates. The sampler and the end-user of data collected from such wells need to understand the limitations of the data collected; i.e., a strong potential for underestimation of actual contaminant concentrations for volatile organics, potential false negatives for filtered metals and potential false positives for unfiltered metals. It is suggested that comparisons be made between samples recovered using low-flow purging techniques and samples recovered using passive sampling techniques (i.e., two sets of samples). Passive sample collection would essentially entail acquisition of the sample with no or very little purging using a dedicated sampling system installed within the screened interval or a passive sample collection device.

#### **A. Low-Permeability Formations (<0.1 L/min recharge)**

##### **1. Low-Flow Purging and Sampling with Pumps**

- a. "portable or non-dedicated mode" - Lower the pump (one capable of pumping at <0.1 L/min) to mid-screen or slightly above and set in place for minimum of 48 hours (to lessen purge volume requirements). After 48 hours, use procedures listed in Part IV above regarding monitoring water quality parameters for stabilization, etc., but do not dewater the screen. If excessive drawdown and slow recovery is a problem, then alternate approaches such as those listed below may be better.
- b. "dedicated mode" - Set the pump as above at least a week prior to sampling; that is, operate in a dedicated pump mode. With this approach significant reductions in purge volume should be realized. Water quality parameters should stabilize quite rapidly due to less disturbance of the sampling zone.

##### **2. Passive Sample Collection**

Passive sampling collection requires insertion of the device into the screened interval for a sufficient time period to allow flow and sample equilibration before extraction for analysis. Conceptually, the extraction of water from low yielding formations seems more akin to the collection of water from the unsaturated zone and passive sampling techniques may be more appropriate in terms of obtaining "representative" samples. Satisfying usual sample volume requirements is typically a problem with this approach and some latitude will be needed on the part of regulatory entities to achieve sampling objectives.

#### **B. Fractured Rock**

In fractured rock formations, a low-flow to zero purging approach using pumps in conjunction with packers to isolate the sampling zone in the borehole is suggested. Passive multi-layer sampling devices may also provide the most "representative" samples. It is imperative in these settings to identify flow paths or water-producing fractures prior to sampling using tools such as borehole flowmeters and/or other geophysical tools.

After identification of water-bearing fractures, install packer(s) and pump assembly for sample collection using low-flow sampling in "dedicated mode" or use a passive sampling device which can isolate the identified water-bearing fractures.

#### **VI. Documentation**

The usual practices for documenting the sampling event should be used for low-flow purging and sampling techniques. This should include, at a minimum: information on the conduct of purging operations (flow-rate, drawdown, water-quality parameter values, volumes extracted and times for measurements), field instrument calibration data, water sampling forms and chain of custody forms. See Figures 2 and 3 and "Ground Water Sampling Workshop -- A Workshop Summary" (U. S. EPA, 1995) for example forms and other documentation suggestions and information. This information coupled with laboratory analytical data and validation data are needed to judge the "useability" of the sampling data.

#### **VII. Notice**

The U.S. Environmental Protection Agency through its Office of Research and Development funded and managed the research described herein as part of its in-house research program and under Contract No. 68-C4-0031 to Dynamac Corporation. It has been subjected to the Agency's peer and administrative review and has been approved for publication as an EPA document. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

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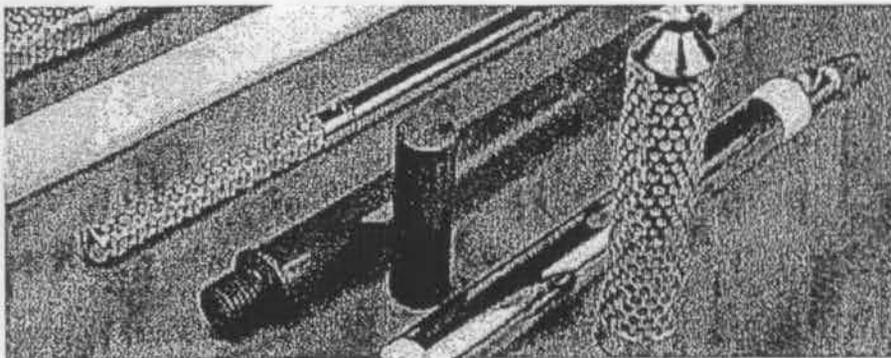
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The heart of every low-flow dedicated groundwater monitoring system is the sampling device. For the system to do its job properly, the sampling device must:

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- \* operate gently without increasing turbidity or altering samples;
- \* deliver reliable performance for many years without needing frequent repairs or maintenance.

Well Wizard® pumps from QED have been doing all this...at more sites...for more users.  
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MicroPurge system pumps come in an unsurpassed range of sizes, materials, and capabilities, including models for deep wells, narrow or obstructed casings, and small-volume pumps for low-yield wells. Together with MicroPurge controllers, flow cells, and accessories, they create the most reliable, cost-effective low-flow system available.

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#### Well Wizard Advantages

-- EPA- accepted low-flow  
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-- Models for every well - low  
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depths to 1,000 feet, casing I.D.  
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performance PTFE bladder formulation offer the reliability critical to long-term monitoring. QED was first in the industry with a standard 10-year sampling pump warranty -- "no-loopholes" protection that covers the entire pump, including the bladder.

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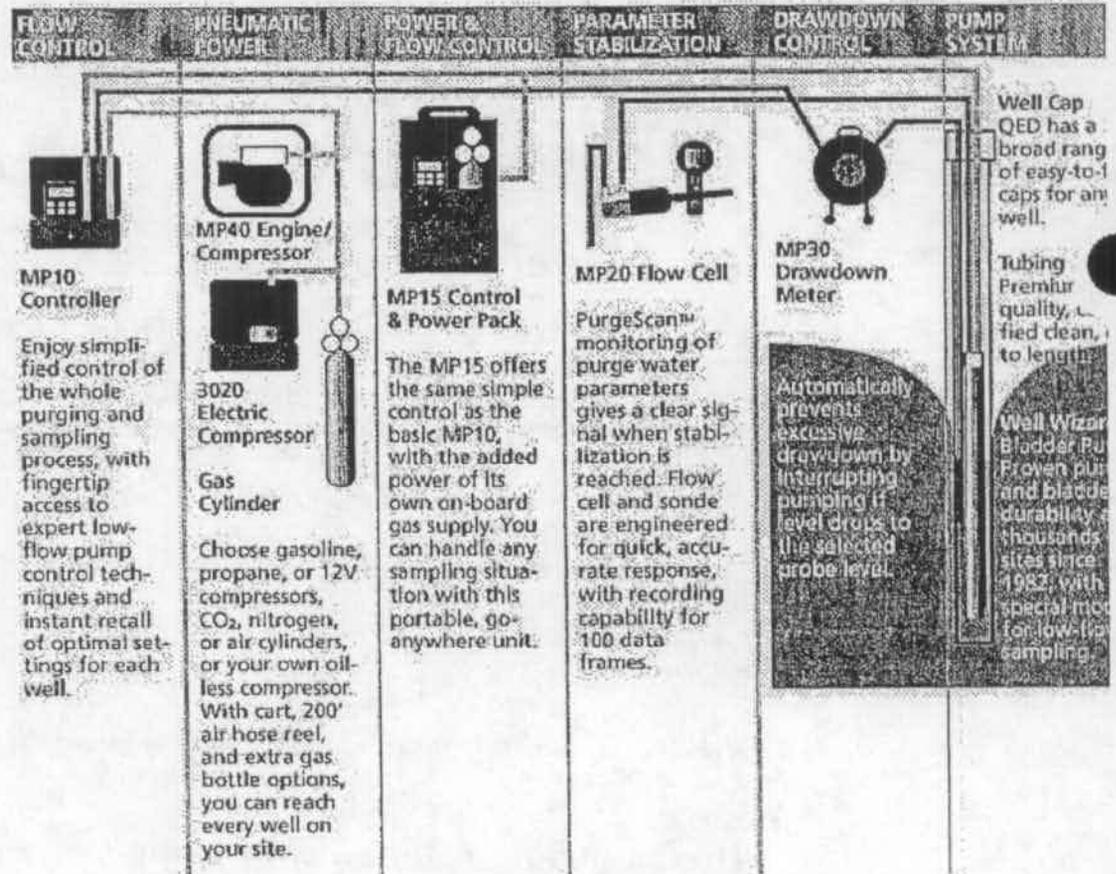
Bladder pumps, EPA-accepted for low-flow sampling, have been shown to deliver superior sample accuracy and precision in dozens of independent studies. Over 40,000 Well Wizard bladder pumps are in use -- more than all other brands and types of dedicated ground water samplers combined.

Well Wizard pumps are built for reliability, with refinements perfected over 16 years of continuous engineering and improvement -- extra value you won't find in any other bladder pump. One example: stainless steel in Well Wizard pumps is electropolished to passivate the surface, delivering years more corrosion resistance than competitors' models.

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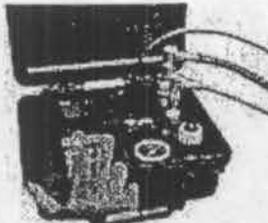
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## MICROPURGE TECHNOLOGY

For more information about MicroPurge technology, go to [www.micropurge.com](http://www.micropurge.com), which provides technical references, MicroPurge Sampling FAQ's, recent MicroPurge news, a slide show on how it works, and contact with David Kaminski, nationally recognized authority on low-flow Sampling.

## System Specifications



### MP10 basics™ Controller

Microprocessor-based advanced logic puts easy 1-2-3 system control at your fingertips.

- Simple up/down arrow keys adjust flow rates, with manual on/off control for sample collection.
- Automatic drawdown control when connected to MP30 Drawdown Meter.
- Compact, rugged, lightweight; allows easy recall of optimized settings for next sam round.

Dimensions: 10-3/4" x 9-3/4" x 5" (27x25x13 cm); Weight: 5.5 lb. (2.5 kg); Max. Press: 120 PSI (8,275 kPa); Max. Pump Depth: 250 feet (76 m); Power: 3 "AA" batteries.



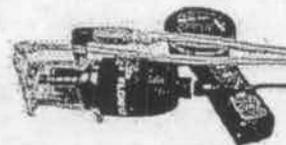
### MP15 basics™ Control & Power Pack

Backpack unit does it all, combining simple control and a quiet, portable compressed gas source.

- At just 27 pounds, it makes remote monitoring wells easier than ever to reach and sample.
- Automatic drawdown control when connected to MP30 Drawdown Meter.

- Pumps up to 7 hours continuously at 50 feet on a single cylinder of CO<sub>2</sub>.

Dimensions: 25-1/2" x 12-1/2" x 10" (65x32x25 cm); Weight: 27 lb. (12 kg); Max. Pres: 120 PSI (8,275 kPa); Max. Pump Depth: 250 Feet (76 m); Power: 3 "AA" batteries; Cylinder: 5 lb. (2.3 kg) CO<sub>2</sub>.



### MP20 basics™ Flow Cell

Measures purge water indicator parameters in-line; compact, more portable (50% smaller).

- PurgeScan technology (U.S. Patent No. 6,415,659) provides automatic stabilizati alert, with visible and audible signals.
- Displays 7 parameters- temperature, DO, specific conductivity, pH, ORP, turbidit salinity.
- Engineered flow cell with automatic stirring for quicker, more accurate response.

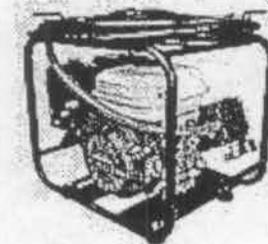
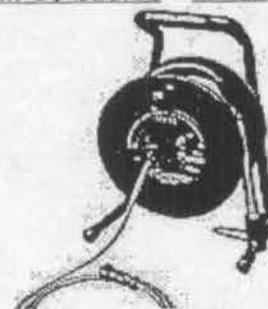
Overall Dimensions: 18-1/2" x 15" x 6-1/2" (47x38x17 cm); Weight: 14 lb. (6.4 kg); Power: 3 "C" batteries; Sonde: 3"x9" (8x23 cm), 1.3 lbs (0.6 kg); Meter: 3.5" (9 cm) Display, 2.1 lb. (1 kg); Memory: 100 Data Frames.

### MP30 basics™ Drawdown & Water Level Meter

Prevents excessive drawdown during low-flow sampling; also functions as a standard level meter.

- Allows setting of drawdown limit, with link to controller for automatic interruption of purging when limit is reached; pumping resumes when well recharges.
- Rugged polyethylene-coated steel tape provides durable performance, accuracy to 0.01 feet.

Overall Dimensions: 14"x10-1/2"x8" (37x27x20 cm); Weight: 7 lb. (3.2 kg) w/ 150' t Power: 9 volt battery; Probe: 5/8" O.D. x 7.5" L. (1.6 x 19 cm); Tape Length: 150 or feet (46 or 91 m).



### MP40 basics™ Engine/Compressor

Compact, oil-less compressor provides long-term durability and easy starting

- Ruggedized for tough field conditions, with shock-absorbing feet and a welded aluminum cage.
- Direct-coupled engine/compressor set decreases weight and minimizes vibration.

- Model 3020 Electric 12 VDC Compressor available as a lightweight (15 lb.), low-o air source.  
Overall Dimensions: 14"x18-1/4"x18-1/2" (36x46x47 cm); Weight: 48 lb. (22 kg); Po 4.0 HP Honda gasoline or propane engine; Max. Pressure: 125 psi (8,620 kPa); Ou 7.0-2.2 CFM (11.9-3.74 m<sup>3</sup>/h) @ 0-125 psi, 20' air hose.



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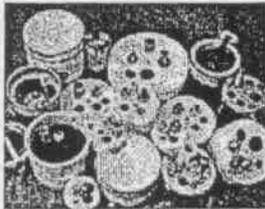
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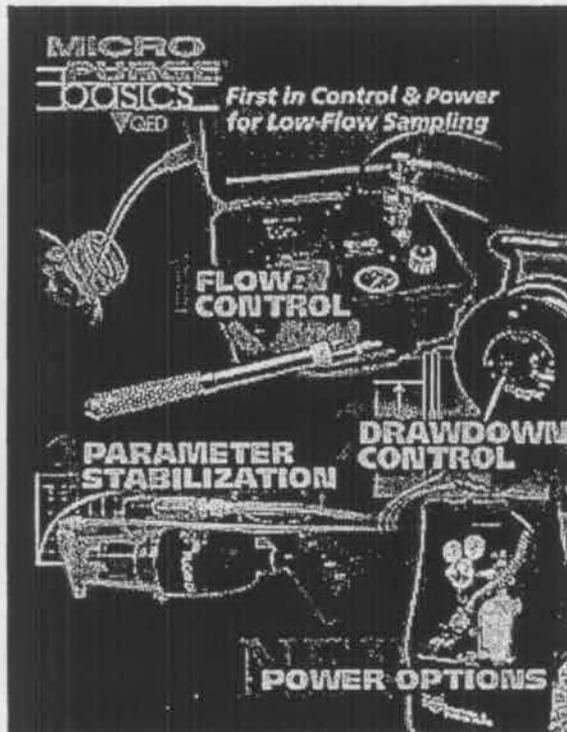
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MicroPurge<sup>®</sup> basics<sup>™</sup> sampling means you can choose your own system – with the control and power to match your site requirements.

Low-flow sampling with MicroPurge<sup>®</sup> equipment offers important advantages over traditional purging and sampling methods, and can benefit many ground-water monitoring programs. It requires three basic steps:

1. Set the purge flow rate;
2. Control drawdown in the well;
3. Stabilize the purge water quality indicator parameters.

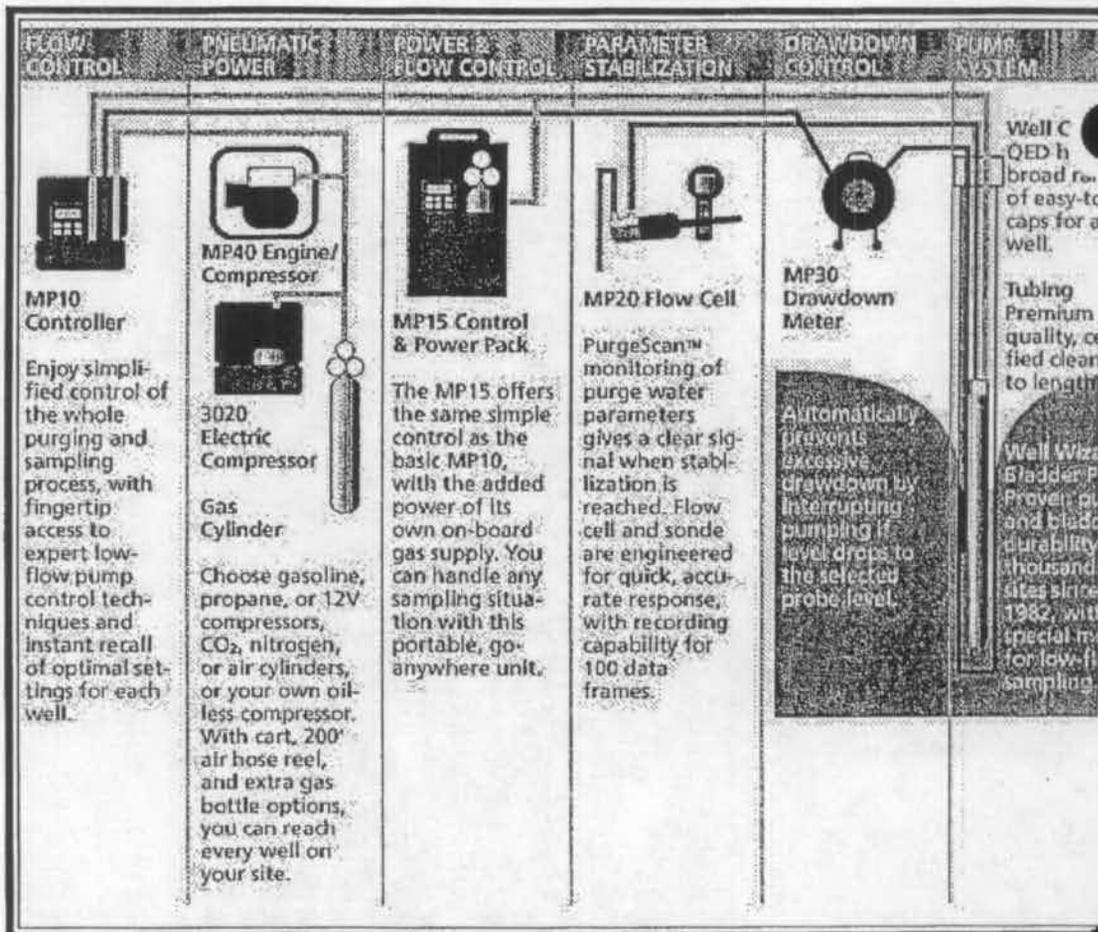
MicroPurge basics<sup>™</sup> equipment is a revolution in low-flow sampling control. The complete line of new MicroPurge basics products, combined with proven Well Wizard<sup>®</sup> pumps, will help you through all three steps with equipment that is easier to use, smaller, lighter, more powerful, and lower priced, too!

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Microprocessor-based control with water-level feedback and exclusive monitoring device delivers the most accurate, precise samples you can get, assuring you consistent, repeatable data and eliminating most regulatory hassles.

### MICROPURGE TECHNOLOGY

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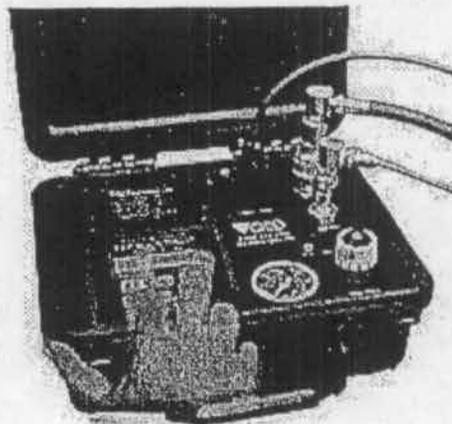
## CONTROL CHOICES: Flow, Drawdown, and Stabilization

### Flow Rate

The new **MP10 MicroPurge® basics™ Controller** revolutionizes sampling pump flow control by making it simple, stable, and repeatable.

Simple faster/slower keystrokes set the flow rate you want, smoothly and accurately. There's no overshooting or flow rate fluctuation that can disturb the well, and no danger of overheating the pump or your sample, as with electric pumps.

Optimized settings for each well are identified for easy recall later.



### Drawdown

The unique, new **MP30 MicroPurge basics Drawdown Control and Level Meter** connects to the MicroPurge basics Controllers and automatically keeps well drawdown within the limits you choose.

If drawdown reaches the limit, the MP30 alerts you and signals the basics controller to pause purging

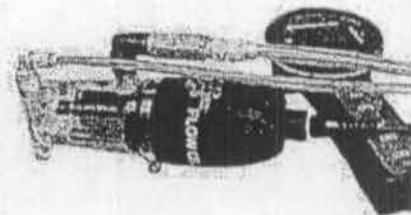


until the well recovers.

#### Parameter Stabilization

The easy-to-use, new MP20 MicroPurge basics Flow Cell incorporates QED's exclusive PurgeScan™ technology (patent pending), which automatically signals stabilization of selected water quality parameters and stores purging data.

There's no need to plot curves or perform simultaneous calculations. And the molded, one-piece Flow Cell is designed with low volume and built-in stirring for quick response.



## POWER CHOICES: Compressors and Gas Cylinders

#### Power Options

The MicroPurge® basics™ system provides new options to power your sampling equipment and extend your reach.

Whether you can drive right to the wells, need an air hose extension, or require portable equipment for remote locations, this system has all the right choices for your sampling program.

#### Oilless Compressors

The new, lightweight MP40 engine-driven compressor packs all the power you need into a tough, compact unit that weighs only 48 pounds. Powered by a 4.0 HP Honda gasoline or propane engine, the MP40 is housed in a rugged, welded aluminum cage for protection and easy handling.

An optional Cart Kit and/or 200' Extended Reach Air Hose Reel can increase your mobility greatly.



#### Electric Compressor

For even lighter travel, QED's 15 pound, proven 3020 Electric Compressor is a convenient, reliable air source. The 12VDC compressor can even be powered by your vehicle's battery.

#### Compressed Gas Cylinders

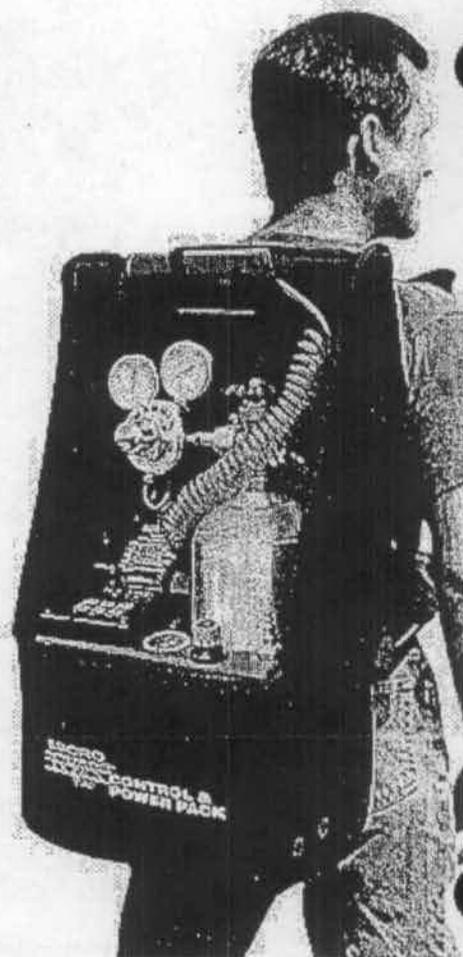
MicroPurge basics equipment can also be used easily with your existing compressed air, nitrogen, or CO<sub>2</sub> cylinders.



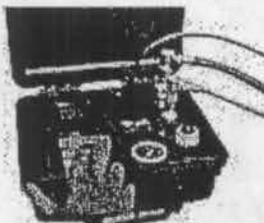
## CONTROL & POWER

in one compact unit

A new, self-contained controller/ compressed gas backpack, the **MP15 Control & Power Pack** is a complete sampling system with one-person portability. The hands-free unit allows sampling personnel easy access to the most remote sites. Liquid CO<sub>2</sub> cylinder provides hours of pumping capacity. Bypass air fitting permits use of other air sources at closer wells.



## System Specifications

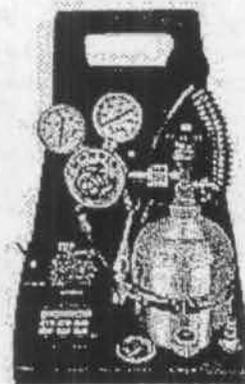


### MP10 basics™ Controller

Microprocessor-based advanced logic puts easy 1-2-3 system control at your fingertips.

- Simple up/down arrow keys adjust flow rates, with manual on/off control for sample collection.
- Automatic drawdown control when connected to MP30 Drawdown Meter.
- Compact, rugged, lightweight; allows easy recall of optimized settings for next run.

Dimensions: 10-3/4" x 9-3/4" x 5" (27x25x13 cm); Weight: 5.5 lb. (2.5 kg); Max. Press. 120 PSI (8,275 kPa); Max. Pump Depth: 250 feet (76 m); Power: 3 "AA" batteries.



### MP15 basics™ Control & Power Pack

Backpack unit does it all, combining simple control and a quiet, portable compressed gas source.

- At just 27 pounds, it makes remote monitoring wells easier than ever to reach and sample.
- Automatic drawdown control when connected to MP30 Drawdown Meter.

- Pumps up to 7 hours continuously at 50 feet on a single cylinder of CO<sub>2</sub>.  
Dimensions: 25-1/2" x 12-1/2" x 10" (65x32x25 cm); Weight: 27 lb. (12 kg); Max. Press. 120 PSI (8,275 kPa); Max. Pump Depth: 250 Feet (76 m); Power: 3 "AA" batteries; Cylinder: 5 lb. (2.3 kg) CO<sub>2</sub>.



### MP20 basics™ Flow Cell

Measures purge water indicator parameters in-line; compact, more portable (50% smaller).

- PurgeScan technology (U.S. Patent No. 6,415,659) provides automatic stabilizati

alert, with visible and audible signals.

- Displays 7 parameters- temperature, DO, specific conductivity, pH, ORP, turbidity, salinity.
- Engineered flow cell with automatic stirring for quicker, more accurate response.

Overall Dimensions: 18-1/2"x15"x6-1/2" (47x38x17 cm); Weight: 14 lb. (6.4 kg); Power: 3 "C" batteries; Sonde: 3"x9" (8x23 cm), 1.3 lbs (0.6 kg); Meter: 3.5" (9 cm) Display, 2.1 lb. (1 kg); Memory: 100 Data Frames.

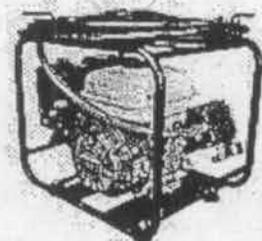
### MP30 basics™ Drawdown & Water Level Meter



Prevents excessive drawdown during low-flow sampling; also functions as a standard level meter.

- Allows setting of drawdown limit, with link to controller for automatic interruption of purging when limit is reached; pumping resumes when well recharges.
- Rugged polyethylene-coated steel tape provides durable performance, accuracy to 0.01 feet.

Overall Dimensions: 14"x10-1/2"x8" (37x27x20 cm); Weight: 7 lb. (3.2 kg) w/ 150' tape  
Power: 9 volt battery; Probe: 5/8" O.D. x 7.5" L. (1.6 x 19 cm); Tape Length: 150 or feet (46 or 91 m).



### MP40 basics™ Engine/Compressor

Compact, oil-less compressor provides long-term durability and easy starting  
- Ruggedized for tough field conditions, with shock-absorbing feet and a welded aluminum cage.

- Direct-coupled engine/compressor set decreases weight and minimizes vibration.
- Model 3020 Electric 12 VDC Compressor available as a lightweight (15 lb.), low-o air source.

Overall Dimensions: 14"x18-1/4"x18-1/2" (36x46x47 cm); Weight: 48 lb. (22 kg); Po 4.0 HP Honda gasoline or propane engine; Max. Pressure: 125 psi (8,620 kPa); Ou 7.0-2.2 CFM (11.9-3.74 m<sup>3</sup>/h) @ 0-125 psi, 20' air hose.



### Well Wizard® Bladder Pumps

Value leader in accuracy, durability, and reliability.

- Proven superior over 18 years, 50,000+ wells worldwide.
- Available in stainless steel, PVC, Teflon®

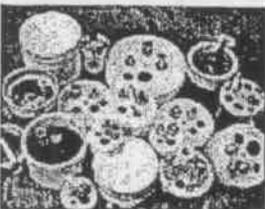
Length: 1.25-3.8 ft. (38-116 cm); O.D. : 1.00-1.66" (2.54-4.22 cm); Volume: 100-495 ml; Max. Lift: 250-1,000 ft. (75-300 m).



### Bonded Tubing

Quality controlled for purity and leak-tight, high strength connections.

- Sizes: 1/4, 3/8, 1/2"; Materials: Poly, Teflon®, and Teflon-lined.



### Well Caps

Standard, locking, low-clearance & watertight; ID tags for MicroPurge settings

- Sizes: 2, 4, 5, 6" & custom;
- Materials: PVC, brass, poly.

Need Help?  
Call 1-800-624-2026

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QED Environmental Systems, Inc.  
*The World Leader in Air Powered Pumps for Remediation, Landfill and Ground Water Sampling*

PO Box 3726 • Ann Arbor, MI 48106-3726 USA  
Toll Free 1-800-624-2026  
Fax (734) 995-1170

**APPENDIX C**

**STATIC WATER LEVEL AND GROUNDWATER  
MONITORING DATA SHEETS (2005)**

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 11-30-03 1405 Project Site: MWA0

Sample ID: USGS103-41mw23-113005-W

Point Name: USGS103-41mw23

Depth to Well Bottom: 31.23 ft. below top of well casing (TOC)

Depth to Water Level: 17.28 ft. below TOC

Depth to Water Level: 17.27 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well \_\_\_\_\_ Liters Three-inch well 1 L

Control Box Settings: Box # 05135 Refill = 10 Discharge = 5 Throttle = 45 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

Purge Calcs

Tube length = 33'

$$33' \times 5.3 \frac{\text{ml}}{\text{ft}} = 174.9 \text{ ml}$$

$$174.9 + 130 \text{ ml} = 304.9 \text{ ml}$$

304.9  
ml

rounded up  
1 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading						Stabilization Criteria	Final
Time	1340	1345	1350	1355	1400		1400	
PH	8.89	8.81	8.75	8.76	8.66	+/- 0.2	8.66	
Temperature (°C)	16.0	15.8	15.7	15.7	15.6	+/- 2.0 °C	15.6	
Specific Conductance ( $\mu\text{mhos/cm}$ )	<del>1.41</del> 1.41	1.41	1.40	1.41	1.40	+/- 3%	<del>1.40</del> 1.40	
Turbidity (NTU)	0.0	0.0	6.0	0.0	0.0	+/- 10%	<del>0.0</del> 0.0	
Dissolved Oxygen (mg/L)	3.34	1.30	1.77	1.72	1.70	+/- 0.2	1.70	
Water Level	17.40	17.40	17.40	17.40	17.40		17.40	
Each Volume Purged (L)	1	1	1	1	1		1	
Total Liters Purged	1	2	3	4	5		5	

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): No odor, clear fluid, no sediment

Comments: Set pigment 21.1' PID = 0.1 ppmv

Sample(s) Collected By: A. McDonald, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-30-05 / 1235 Project Site: HW A0

Sample ID: USGS 103-41MW25-113005-W

Point Name: USGS103-41MW25

Depth to Well Bottom: 27.32 ft. below top of well casing (TOC)

Depth to Water Level: 22.02 ft. below TOC

Depth to Water Level: 20.93 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

**Purge Calcs**

Tubing = 34'  
 $34 \text{ ft} \times 5.3 \text{ ml/ft} = 180.2 \text{ ml}$   
 $180.2 + 130 = 310.2 \text{ ml}$   
 1 L rounded

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters  
 Four-inch well \_\_\_\_\_ Liters  
Three inch well 1 L

Control Box Settings: Box # 05135 Refill = 21 Discharge = 3 Throttle = 40 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.15 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1150	1155	1200	1205	1210	1215	1220	1225	1230		
PH	10.42	10.41	10.36	10.38	10.39	10.05	10.09	10.01	9.93	+/- 0.2	9.1
Temperature (°C)	15.0	15.7	15.3	14.8	14.6	15.2	15.6	15.9	16.0	+/- 2.0 °C	16.0
Specific Conductance <sup>µmhos/cm</sup> <del>(µmhos/cm)</del> <sub>ster</sub>	2.14	2.18	2.19	2.17	2.18	2.14	2.14	2.13	2.13	+/- 3%	2.15 2.10
Turbidity (NTU)	365	303	301	263	25.7	24.5	26.2	24.5	23.8	+/- 10%	23.8
Dissolved Oxygen (mg/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	+/- 0.2	0.00
Water Level	21.27	21.13	22.15	22.20	22.23	22.23	22.23	22.23	22.23		21.23
Each Volume Purged (L)	1	1.0	0.8	0.8	0.6	0.6	0.5	0.5	0.5		
Total Liters Purged	1	2.0	2.8	3.6	4.2	4.8	5.3	5.8	6.3		6.3

Duplicate Sample Collected?  No, Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No, Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): No odor, color was clear.

Comments Set pump at 24' FID = 0.0 ppm.

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

Additional comments: The water column was drawn down ~ 1 ft before the pump settings were dialed in correctly. Readings done on 8 intervals.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05 0830 Project Site: HWAD

Sample ID: EAFMWP Pldg 70 MWU1-120705-W

Point Name: 0205701W01

Depth to Well Bottom: 130.3 ft. below top of well casing (TOC)

Depth to Water Level: 104.30 ft. below TOC

Depth to Water Level: 104.31 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # 1201 Refill = 10 Discharge = 17 Throttle = 60 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.27 Liters/Min

Purge Calcs

115' x 5.3 ml/ft =  
609.5 + 170 ml =  
779.5 ml  
rounded to 1.0 l

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	0759	0804	0809	0814			0814
PH	7.54	7.54	7.52	7.53		+/- 0.2	7.53
Temperature (°C)	18.45	18.5	18.5	18.55		+/- 2.0 °C	18.55
Specific Conductance (µmhos/cm)	1520	1510	1520	1520		+/- 3%	1520
Turbidity (NTU)	0.2	0.2	0.2	0.2		+/- 10%	0.2
Dissolved Oxygen (mg/L)	5.5	5.4	5.2	5.2		+/- 0.2	5.2
Water Level	104.31	104.31	104.31	104.31			104.31
Each Volume Purged (L)	1.0	1.1	1.0	1.0			-
Total Liters Purged	1.0	2.1	3.1	4.1			4.1

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear colorless, odorless

Comments PID = 16.9 ppm, pump set at 115'

Sample(s) Collected By: Rich Howell, Roy Elean

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.  
water quality meter calibrated 0700.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/16/05 1000

Project Site: HWAD

Sample ID: DZB101-13HW4-121605-W

Point Name: DZB101-13HW4

Depth to Well Bottom: 120.4 ft. below top of well casing (TOC)

Depth to Water Level: 98.03 ft. below TOC *After sample*

Depth to Water Level: 98.43 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Purge Calcs

$112 \text{ ft} \times 5.3 \frac{\text{ml}}{\text{ft}} = 593.6 \text{ L}$   
 $593.6 \text{ L} + 130 \text{ mL} = 723.6 \text{ mL}$   
 $723.6 \text{ mL} \times \frac{1}{1000} = .724$

1 L

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 L Liters

Control Box Settings: Box # \_\_\_\_\_ Refill = 10 Discharge = 8 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading	3	3	3	3				Stabilization Criteria	Final
Time	09:35	09:40	09:45	09:50	09:55					
PH	8.14	8.15	8.16	8.17	8.17				+/- 0.2	8.17
Temperature (°C)	19.43	20.35	21.01	21.42	21.77				+/- 2.0 °C	21.27
Specific Conductance (µmhos/cm)	1.56	1.56	1.55	1.55	1.55				+/- 3%	1.55 <i>(OK)</i>
Turbidity (NTU)	0	0	0	0	0				+/- 10%	0
Dissolved Oxygen (mg/L)	1.34	1.00	.69	.52	.50				+/- 0.2	.50
Water Level	98.70	98.70	98.70	98.70	98.70					98.70
Each Volume Purged (L)	1	1	1	1	1					1
Total Liters Purged	1	2	3	4	5					5

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): None

Comments: SID = 0.0 ppm, SET pump to 104.4'

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection 2/16/05 1 1105

Project Site: HLAD

Sample ID: DZB101-13MWS 1216-05- W

Point Name: DZB101-13MWS

Purge Calcs

138 ft. x 5.3 ml/ft = 572.4 ml  
 572.4 ml + 130 = 702.4 ml  
 702.4 ml - 130 = 572.4 ml  
1L

Depth to Well Bottom: 117.5 ft. below top of well casing (TOC)

Depth to Water Level: 98.83 ft. below TOC *After Sample*

Depth to Water Level: 98.37 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1L Liters

Control Box Settings: Box # 05116 Refill = 1R Discharge = B Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.28 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading	7	2	7	2				Stabilization Criteria	Final
Time	1043	1049	1053	1058						
PH	8.17	8.17	8.13	8.17					+/- 0.2	8.17
Temperature (°C)	20.55	21.48	21.12	21.49					+/- 2.0°C	21.49
Specific Conductance (µmhos/cm)	1.52	1.54	1.52	1.54					+/- 3%	1.54 <span style="float: right;">28</span>
Turbidity (NTU)	0	0	0	0					+/- 10%	0
Dissolved Oxygen (mg/L)	1.53	0.75	0.60	0.52					+/- 0.2	0.52
Water Level	98.53	98.33	98.33	98.33						98.33
Each Volume Purged (L)	1	1.2	1	1						
Total Liters Purged	1	2.2	3.2	4.2						4.2

Duplicate Sample Collected? No Yes <sup>11</sup> (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected? No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): \_\_\_\_\_

Comments: PID = 0.0 ppm SET PUMP TO 102.0', NEED TO DRAW DOWN WELL ~0.5' TO GET BETTER RECHARGE

Sample(s) Collected By: DJK & AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12/26/05 1401

Project Site: HWAD

Sample ID: DZB101-13MWB-121205-W

Point Name: DZB101-13MWB

Depth to Well Bottom: 178.7 ft. below top of well casing (TOC)

Depth to Water Level: 112.09 ft. below TOC *after sampling*

Depth to Water Level: 111.41 ft. below TOC prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 L Liters

Control Box Settings: Box # \_\_\_\_\_ Refill = 12 Discharge = 9 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.22 Liters/Min

**Purge Calcs**

$123 \text{ ft.} \times 5.3 \text{ ml/ft.} = 678.4 \text{ ml}$   
 $678.4 \text{ ml} + 130 \text{ ml} = 808.4 \text{ ml}$   
 $808.4 \text{ ml} \div 120 \text{ min} = 6.74 \text{ ml/min}$   
 $6.74 \text{ ml/min} \times 1.5 \text{ min} = 10.11 \text{ ml}$   
1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1341	1346	1351	1356							
PH	8.02	8.04	8.04	8.04					+/- 0.2	8.07	
Temperature (°C)	21.22	21.26	21.18	21.10					+/- 2.0 °C	21.17	
Specific Conductance (µmhos/cm)	1.50	1.51	1.52	1.53					+/- 3%	1.53 1570	
Turbidity (NTU)	0	0	0	0					+/- 10%	0	
Dissolved Oxygen (mg/L)	5.23	4.46	4.82	4.30					+/- 0.2	4.30	
Water Level	112.09	112.10	112.10	112.10						112.10	
Each Volume Purged (L)	1	1	.8	.8							
Total Liters Purged	1	2	2.5	3.3						3.3	

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): colorless, odorless

Comments: set pump to 120.3' -> Dropped water level for better recovery

Sample(s) Collected By: A. McDaniel, D. Kennedy

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

*FOR FINITE SAMPLE AFTER THIS WELL.  
DZB101-13MWB-121205-WER @ 1440*

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12/15/05 10:00 Project Site: HLWAD

Sample ID: D2B101-44mm-121505-02

Point Name: D2B101-44mm

Depth to Well Bottom: 157.4 ft. below top of well casing (TOC)

Depth to Water Level: 141.83 ft. below TOC *At sample*

Depth to Water Level: 141.38 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

**Purge Calcs**

$157.4 \text{ ft} \times 5.3 \text{ ml/ft} = 836.2 \text{ ml}$

$836.2 \text{ ml} + 130 \text{ ml} = 966.2 \text{ ml}$

$966.2 \text{ ml} \div 1000 \text{ ml/L} = 0.966 \text{ L}$

1L

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 0535 Refill = 12 Discharge = 11 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading	1	2	3	4	5			Stabilization Criteria	Final
Time	09:40	09:45	09:50	09:55	10:00					
PH	8.5	8.3	8.01	8.0					+/- 0.2	8.00
Temperature (°C)	14.83	15.22	16.26	16.77					+/- 2.0°C	16.17
Specific Conductance (µmhos/cm)	1.65	1.67	1.62	1.62					+/- 3%	1.62
Turbidity (NTU)	0	0	0	0					+/- 10%	0
Dissolved Oxygen (mg/L)	4.81	7.75	7.92	7.31					+/- 0.2	7.31
Water Level	141.83	141.39	141.21	141.31						141.31
Each Volume Purged (L)	1	2	0.6	0.7						
Total Liters Purged	1	1.7	2.3	3.0						3.0

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): COLORLESS, ODORLESS

Comments: PII - 2 ipm pump at 1466

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/15/05 0805

Project Site: HIWAD

Sample ID: DZB101-44MWZ-121505-W

Point Name: DZB101-44MWZ

Depth to Well Bottom: 158.0 ft. below top of well casing (TOC)

Depth to Water Level: 141.23 ft. below TOC

Depth to Water Level: 141.22 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 2L Liters

Control Box Settings: Box # 05135 Refill = 17 Discharge = 9 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

Purge Calcs  
 $155 \text{ ft} \times 5.3 \text{ ml/ft} = 821.5 \text{ ml}$   
 $130 \text{ ml bladder} = 130 \text{ ml}$   
 $821.5 \text{ ml} + 130 \text{ ml} = 951.5 \text{ ml}$   
 $951.5 \text{ ml} = 0.95 \text{ L}$   
1.1

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading	1	2	3	4	5	6	7	8	9	10	Stabilization Criteria	Final
Time	0745	0750	0755	0800									
PH	5.0	3.0	3.0	7.0								+/- 0.2	7.0
Temperature (°C)	13.41	14.00	13.33	13.37								+/- 2.0°C	13.57
Specific Conductance (µmhos/cm)	1.67	1.60	1.69	1.72								+/- 3%	1.72 NA
Turbidity (NTU)	7.6	9.9	9.7	9.5								+/- 10%	9.5
Dissolved Oxygen (mg/L)	7.8	7.06	8.25	7.87								+/- 0.2	7.87
Water Level	141.30	141.30	141.30	141.30									
Each Volume Purged (L)	1	1	1	1									
Total Liters Purged	1	1.0	2.2	3.0									3.0

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): OK

Comments PID = 1.3 ppm, SET PUMP TO 147.0'

Sample(s) Collected By: AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/15/05, 1140

Project Site: HWAI

Sample ID: DZB101-44MW3-121505-W

Point Name: DZB101-44MW3

Purge Calcs

$147.75 \text{ ft.} \times 5.3 \text{ mL/ft.} = 779.1 \text{ mL}$   
 $779.1 \text{ mL} + 130 \text{ mL} = 909.1 \text{ mL}$   
 $909.1 \text{ mL} \div 1.0 \text{ mL} = 909.1 \text{ L}$

1 L

Depth to Well Bottom: 158.75 ft. below top of well casing (TOC)

Depth to Water Level: 145.63 ft. below TOC After Sample

Depth to Water Level: 145.03 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 25135 Refill = 12 Discharge = 12 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.21 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
		3	5	5	5						
Time	1120	1125	1130	1135							
PH	8.10	8.11	8.09	8.09					+/- 0.2	8.09	
Temperature (°C)	18.36	19.28	19.40	19.0?					+/- 2.0°C	19.03	
Specific Conductance (µmhos/cm)	170	173	172	174					+/- 3%	174	
Turbidity (NTU)	12.6	12.3	12.7	12.3					+/- 10%	12.3	
Dissolved Oxygen (mg/L)	9.33	9.41	9.41	9.43					+/- 0.2	9.43	
Water Level	145.65	145.65	145.65	145.65						145.65	
Each Volume Purged (L)	1	.5	.7	.7							
Total Liters Purged	1	1.5	2.5	3.2						3.2	

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Yellow tint - no odor or sed.

Comments PID = 0.0 SET PUMP TO 150 146.5 AM WETTED SCREEN IS ONLY 0.62' SO SET PUMP LOWER

Sample(s) Collected By: JK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-1-05 /

Project Site: HWAN

Sample ID: HWAAP 02 - 120105 - W

Point Name: HWAAP02

Purge Calcs

Depth to Well Bottom: 200.49 well dry @ 200.49 ft ft. below top of well casing (TOC)

Depth to Water Level: \_\_\_\_\_ ft. below TOC

Depth to Water Level: \_\_\_\_\_ ft below TOC prior to sampling

Method of Purging: Bladder Pump  Submersible Pump  
 Bailor

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # \_\_\_\_\_ Refill = \_\_\_\_\_ Discharge = \_\_\_\_\_ Throttle = \_\_\_\_\_ psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate \_\_\_\_\_ Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time											
PH										+/- 0.2	
Temperature (°C)										+/- 2.0 °C	
Specific Conductance (µmhos/cm)										+/- 3%	
Turbidity (NTU)										+/- 10%	
Dissolved Oxygen (mg/L)										+/- 0.2	
Water Level											
Each Volume Purged (L)											
Total Liters Purged											

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): \_\_\_\_\_

Comments 0 Well not sampled, no water, dry well

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-1-05 1145

Project Site: HWAD

Sample ID: HWAAPO9-120105-W

Point Name: HWAAPO9

Depth to Well Bottom: 178.0 ft. below top of well casing (TOC)

Depth to Water Level: 106.06 ft. below TOC

Depth to Water Level: 109.00 ft below TOC prior to sampling

Method of Purging:  Bladder Pump Bailer       Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 1811 Refill = 22 Discharge = 8 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.27 Liters/Min

Purge Calcs

tube length = 170'

170' x 5.3 ml/ft  
= 901 ml

901 + 130 ml  
= 1031 ml

rounded to 1.5 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading									Stabilization Criteria	Final
		<del>1024</del>	<del>1029</del>	<del>1034</del>	<del>1039</del>	<del>1044</del>	<del>1049</del>	<del>1054</del>	<del>1059</del>		
Time	1014	1024	1029	1034	1039	1044	1049	1057	1102		1102
PH	8.80	8.8	8.8	8.8	8.8	8.8	8.8	8.7	8.7	+/- 0.2	8.7
Temperature (°C)	15.98	15.91	16.10	15.97	15.73	15.69	15.81	15.96	16.11	+/- 2.0 °C	16.11
Specific Conductance (µmhos/cm)	305	354	352	349	348	347	343	343	343	+/- 3%	343
Turbidity (NTU)	137.0	132.0	108.0	109	108	107	101	85.1	94.8	+/- 10%	94.8
Dissolved Oxygen (mg/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.15	+/- 0.2	6.15
Water Level	107.01	107.4	107.6	107.82	108.1	108.35	108.70	108.80	109.0		109.0
Each Volume Purged (L)	1.5	1.0	0.4	0.7	0.7	0.7	1.0	0.4	0.4		-
Total Liters Purged	1.5	2.5	2.9	3.6	4.3	5.0	6.0	6.4	6.8		6.8

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): slight brownish color, no odor, some sed

Comments P10 = 0.0 Pump Jet at 170'

Sample(s) Collected By: Rich Howell, Guy Elery

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

- water quality meter calibrated o.k. at 0730.
- Stabilization not achieved after 8 readings, so samples collected.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-8-05 1415 Project Site: HWAD

Sample ID: IRAP HWAAP09.120805-W \*

Point Name: NWAAP09

**Purge Calcs**

170' x 5.3 ml/ft =  
901 mL

901 + 170 mL =  
1071

rounded to 1.5 L

Depth to Well Bottom: 178 ft. below top of well casing (TOC)

Depth to Water Level: 106.1 ft. below TOC

Depth to Water Level: 107.45 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Batter

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 1297 Refill = 16 Discharge = 16 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading							Stabilization Criteria	Final	
Time	1440	1445	1450	1455	1500	1505				1
PH	8.74	8.77	8.72	8.72	8.72	8.71		+/- 0.2		8.11
Temperature (°C)	13.4	13.8	13.85	13.9	13.9	13.9		+/- 2.0°C		13.7
Specific Conductance (µmhos/cm)	363	356	356	355	356	357		+/- 3%		357
Turbidity (NTU)	58.1	48.4	49.3	49.9	44.5	44.0		+/- 10%		44.0
Dissolved Oxygen (mg/L)	1.15	0.6	0.4	0.25	0.1	0.05		+/- 0.2		0.05
Water Level	106.35	106.6	106.79	107.0	107.18	107.45				107.45
Each Volume Purged (L)	1.5	.700	.700	.700	.700	.700				-
Total Liters Purged	1.5	2.2	2.9	3.6	4.3	5.0				5.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): light/yellow-brown color, some sed, light <sup>sulphur</sup> sulfur smell

Comments PID = 0.0 ppm, Pump set at 170'

Sample(s) Collected By: Rich Howell, Roy Green

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

*\* Resample for NO<sub>2</sub> + NO<sub>3</sub> because of missal hole time.*

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12-1-05 / 1000 Project Site: HWAAD

Sample ID: HWAAP10-120105-W

Point Name: HWAAP10

Depth to Well Bottom: 109.9 ft. below top of well casing (TOC)

Depth to Water Level: 67.31 ft. below TOC after

Depth to Water Level: 66.62 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 16 Discharge = 4 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.1 Liters/Min

Purge Calcs

Tube length = 104.2 ft  
 $104.2 \text{ ft} \times 5.3 \text{ ml/ft}$   
 $= 552.26 + 130$   
 $= 682.26 \text{ L}$   
 Round to 2L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	730	935	940	945	950	955			955
PH	8.16	8.16	8.15	8.15	8.13	8.13		+/- 0.2	8.13
Temperature (°C)	15.1	15.2	14.9	14.9	14.9	15.2		+/- 2.0 °C	15.2
Specific Conductance (µmhos/cm)	504	480	477	470	470	467		+/- 3%	467
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0		+/- 10%	0.0
Dissolved Oxygen (mg/L)	6.92	7.13	7.16	7.15	7.20	7.20		+/- 0.2	7.20
Water Level	67.12	67.27	67.26	67.26	67.28	67.28			67.28
Each Volume Purged (L)	1	0.8	0.5	0.5	0.5	0.5			
Total Liters Purged	1	1.8	2.3	2.8	3.3	3.8			3.8

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear liquid, no odor, no sediment

Comments PIA = 0.0 Set pump at 96.2'

Sample(s) Collected By: A. McDaniel, L. J. 220

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Note: The water column was dropped ~ 1ft before adequate recharge was achieved. 5 samples were taken to ensure stability



Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05, 1445 Project Site: HWAD

Sample ID: HWAAP15-120705-V

Point Name: HWAAP15

Depth to Well Bottom: 157.0 ft. below top of well casing (TOC)

Depth to Water Level: 127.15 ft. below TOC

Depth to Water Level: 127.19 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # 1011 Refill = 10 Discharge = 17 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.28 Liters/Min

Purge Calc

$153' \times 5.3 \text{ ml/ft} =$   
 $810.9 \times 130 \text{ ml} =$   
 $940.9 \text{ ml}$   
rounded to 1.0 l

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	1412	1417	1422	1427			1427
PH	8.62	8.65	8.64	8.63		+/- 0.2	8.63
Temperature (°C)	17.5	17.7	17.7	17.7		+/- 2.0°C	17.7
Specific Conductance (µmhos/cm)	1570	1590	1600	1610		+/- 3%	1610
Turbidity (NTU)	<2	<2	<2	<2		+/- 10%	<2
Dissolved Oxygen (mg/L)	6.2	6.1	6.0	6.0		+/- 0.2	6.0
Water Level	127.19	127.19	127.19	127.19			127.19
Each Volume Purged (L)	1.0	1.1	1.1	1.1			-
Total Liters Purged	1.0	2.1	3.2	4.3			4.3

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments: PI0 = 0.0 ppm, Pump set at 153'

Sample(s) Collected By: Rich Howell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

-Equipment rinsed collected after this well  
HWAAP15-120705-W1A  
time = 1455

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12.7.05, 0955 Project Site: HWAAD

Sample ID: ~~EA~~ HWAAP16A-120705-W

Point Name: HWAAP16

Depth to Well Bottom: 121.68 ft. below top of well casing (TOC)

Depth to Water Level: 108.3 ft. below TOC

Depth to Water Level: 108.02 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # 1004 Refill = 10 Discharge = 18 Throttle = 60 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.31 Liters/Min

**Purge Calcs**

$119' \times 5.3 \text{ ml/ft} =$   
 $630.7 + 130 =$   
 $760.7 \text{ ml}$   
 rounded to 1.0L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	0924	0929	0934	0939					0
PH	8.07	8.04	7.95	8.01			+/- 0.2	8.01	
Temperature (°C)	18.4	18.3	18.4	18.3			+/- 2.0 °C	18.3	
Specific Conductance (µmhos/cm)	1650	1650	1670	1660			+/- 3%	1660	
Turbidity (NTU)	<2	<2	<2	<2			+/- 10%	<2	
Dissolved Oxygen (mg/L)	7.3	7.1	7.1	7.05			+/- 0.2	7.05	
Water Level	108.05	108.05	108.25	108.02				108.02	
Each Volume Purged (L)	1.0	1.25	1.25	1.25				-	
Total Liters Purged	1.0	2.25	3.5	4.75				4.75	

Duplicate Sample Collected? No  Yes (Sample ID of Duplicate) HWAAP16B-120705-W (1010)

MS/MSD Sample Collected?  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PID = 0.0 ppm, Pump set at 119'

Sample(s) Collected By: Rich Aswell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05, 1245 Project Site: HWAD

Sample ID: HWAAPI7-120705-W

Point Name: HWAAPI7

Depth to Well Bottom: 128.1 ft. below top of well casing (TOC)

Depth to Water Level: 102.45 ft. below TOC

Depth to Water Level: 102.49 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters  
Four-inch well 1.0 Liters

Control Box Settings: Box # rent Refill = 10 Discharge = 15 Throttle = 70 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

**Purge Calcs**

122' x 5.3 ml/ft =  
646.6 + 130 ml =  
776.6 ml  
rounded to 1.0L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading						Stabilization Criteria	Final
Time	1219	1224	1229	1234	1239			1239
PH	8.97	8.86	9.05	9.04	9.03		+/- 0.2	9.03
Temperature (°C)	17.7	17.2	17.0	17.0	17.15		+/- 2.0 °C	17.15
Specific Conductance (µmhos/cm)	1590	1610	1610	1620	1620		+/- 3%	1620
Turbidity (NTU)	<2	<2	<2	<2	<2		+/- 10%	<2
Dissolved Oxygen (mg/L)	1.5	1.0	1.0	0.95	0.95		+/- 0.2	0.95
Water Level	102.49	102.49	102.49	102.49	102.49			102.49
Each Volume Purged (L)	1.0	1.25	1.25	1.25	1.25			-
Total Liters Purged	1.0	2.25	3.5	4.75	6.0			6.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments: PID = 0.0 ppm, Pump set at 122'

Sample(s) Collected By: Rich Howell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05, 1135 Project Site: HWAD

Sample ID: HWAAP18-120705

Point Name: HWAAP18

Depth to Well Bottom: 110.58 ft. below top of well casing (TOC)

Depth to Water Level: 102.05 ft. below TOC

Depth to Water Level: 102.05 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # 1297 Refill = 10 Discharge = 16 Throttle = 60 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.31 Liters/Min

Purge Calcs

$109' \times 5.3 \text{ ml/ft} =$   
 $577.7 + 130 \text{ ml} =$   
 $707.7 \text{ ml}$   
 rounded to 1.0L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1108	1113	1118	1122							1
PH	8.78	8.79	8.78	8.73						+/- 0.2	8.73
Temperature (°C)	16.8	17.6	17.65	17.7						+/- 2.0 °C	17.7
Specific Conductance (µmhos/cm)	1570	1630	1630	1640						+/- 3%	1640
Turbidity (NTU)	<2	<2	<2	<2						+/- 10%	<2
Dissolved Oxygen (mg/L)	7.8	7.6	7.55	7.50						+/- 0.2	7.5
Water Level	102.05	102.05	102.05	102.05							102.05
Each Volume Purged (L)	1.0	1.25	1.25	1.25							-
Total Liters Purged	1.0	2.25	3.5	4.75							4.75

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PID = 0.0 ppm, Pump set at 109'

Sample(s) Collected By: Nick Howell, Roy Ellen

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-29-05 / 1020

Project Site: HWAD

Sample ID: IRPMW01-112905-W

Point Name: IRPMW01

**Purge Calcs**

Tubing length = 66.2 ft  
 $66.2 \text{ ft} \times 5.3 \text{ ml/ft} = 350.86$   
 $350.86 \text{ ml} + 130 \text{ ml} = 480.86 \text{ ml}$   
 Rounded to  
1 L

Depth to Well Bottom: 64.14 ft. below top of well casing (TOC)

Depth to Water Level: 2.21 ft. below TOC after sampling

Depth to Water Level: 2.19 ft below TOC prior to sampling

Method of Purging: (Bladder Pump) Bailer Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # \_\_\_\_\_ Refill = 10 Discharge = 20 15 Throttle = 40 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	9:55	1000	1005	1010							10:10
PH	8.21	8.22	<del>8.21</del> 8.18	8.21						+/- 0.2	8.21
Temperature (°C)	14.7	15.0	14.8	14.8						+/- 2.0°C	14.8
Specific Conductance ( $\frac{\mu\text{mhos/cm}}{\text{ft}}$ )	1.45	1.43	1.42	1.44						+/- 3%	1.44
Turbidity (NTU)	0.0	0.0	0.0	0.0						+/- 10%	0.0
Dissolved Oxygen (mg/L)	0.04	0.15	0.00	0.00						+/- 0.2	0.00
Water Level	2.35	2.40	2.41	2.41							2.41
Each Volume Purged (L)	1	0.9	0.9	0.9							
Total Liters Purged	1	1.9	2.8	3.7							4.2

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) IRPMW01-112905-W 10

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, odorless water

Comments Setting pump at 60.2 ft. Artesian well

Sample(s) Collected By: A. McDaniel, L. Tzzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11/29/05 / 1220 Project Site: HWAO

Sample ID: I R P M W 02 - 112905 - W

Point Name: I R P M W 02

Depth to Well Bottom: 32.74 ft. below top of well casing (TOC)

Depth to Water Level: 26.16 ft. below TOC

Depth to Water Level: 26.13 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 5 sec Throttle = 65 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

Purge Calcs

Tubing length = 34.8'

$34.8 \text{ ft} \times 5.3 \text{ ml/ft} = 184.44 \text{ ml}$

$184.44 \text{ ml} + 130 \text{ ml} = 314.44 \text{ ml}$

Rounded up  
= 1 mL

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1140	1145	1150	1155	1200	1205	1210	1215			1
PH	7.43	7.46	7.39	7.39	7.39	7.39	7.39	7.39		+/- 0.2	7.39
Temperature (°C)	16.4	16.3	16.8	16.6	16.6	16.3	16.5	16.6		+/- 2.0 °C	16.6
Specific Conductance ( $\mu\text{mhos/cm}$ ) <i>MS/cm</i>	5.11	5.15	5.13	5.15	5.12	5.32	5.31	5.29		+/- 3%	5.29 <del>5.24</del>
Turbidity (NTU)	0.0	0.0	7.6	0.0	15.8	54.1	55.6	55.7		+/- 10%	55.7
Dissolved Oxygen (mg/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		+/- 0.2	0.00
Water Level	26.17	26.16	26.16	26.16	26.16	26.16	26.16	26.16			26.16
Each Volume Purged (L)	1	1.3	1.7	1.5	1.5	1.5	1.5	1.5			
Total Liters Purged	1	2.3	4.0	5.5	7.0	8.5	10	11.5			11.5

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): slight yellowish color, no odor

Comments: set pump to 28.5' <sup>to</sup> 28.8'

Sample(s) Collected By: A. M. Daniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before colli of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-27-05 / 1355 Project Site: HWA0

Sample ID: IRPMW04 - 112905-W

Point Name: IRPMW04

Depth to Well Bottom: 28.04 ft. below top of well casing (TOC)

Depth to Water Level: 20.67 ft. below TOC

Depth to Water Level: 20.65 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailler

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 sec Discharge = 5 sec Throttle = 55 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

Purge Calcs

Tubing length = 30.2'

30.2' x 5.3 ml/ft = 160.06 ml

160.06 ml + 130 ml = 290.06 ml

Rounded up to 1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	1335	1340	1345	1350			1350
PH	8.29	8.30	8.32	8.33		+/- 0.2	8.33
Temperature (°C)	16.7	16.8	16.8	16.9		+/- 2.0 °C	16.9
Specific Conductance ( $\mu\text{mhos/cm}$ ) <i>5/11</i>	1.83	1.84	1.82	1.82		+/- 3%	1.82 <i>1.82</i>
Turbidity (NTU)	0.0	0.0	0.0	0.0		+/- 10%	0.0
Dissolved Oxygen (mg/L)	1.44	1.36	1.22	1.16		+/- 0.2	1.16
Water Level	20.67	20.67	20.67	20.67			20.67
Each Volume Purged (L)	1	1.3	1.3 <sup>13</sup>	1.4			1.4
Total Liters Purged	1	2.3	3.6	5.0			5.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Slight yellowish color, no odor.

Comments Set pump to 24.2'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-29-05 / 1545 Project Site: HWA0

Sample ID: IRPMW05-112905-W

Point Name: IRPMW05

**Purge Calcs**

Tubing length = 72'

$(72 \times 5.3 \text{ ml/ft}) = 386.9 \text{ ml}$

$386.9 + 130 \text{ ml} = 516.9 \text{ mL}$

$= 0.5169 \text{ L}$

Rounded to 1L

Depth to Well Bottom: 76.68 ft. below top of well casing (TOC)

Depth to Water Level: 9.28 ft. below TOC

Depth to Water Level: 9.23 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 sec Discharge = 5 sec Throttle = 70 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading							Stabilization Criteria	Final	
Time	1520	1525	1530	1535	1540				1	
PH	8.18	8.15	8.13	8.13	8.13			+/- 0.2	8.13	
Temperature (°C)	16.6	16.5	16.6	16.7	16.5			+/- 2.0°C	16.5	
Specific Conductance ( $\mu\text{mhos/cm}$ ) <i>system</i>	1.45	1.44	1.42	1.44	1.44			+/- 3%	1.44 <del>1.44</del>	
Turbidity (NTU)	1.3	0.4	0.0	0.0	0.0			+/- 10%	0.0	
Dissolved Oxygen (mg/L)	0.74	0.25	0.18	0.28	0.37			+/- 0.2	0.37	
Water Level	9.27	9.29	9.28	9.28	9.28				9.28	
Each Volume Purged (L)	1	0.8	1.0	1.2	1.2					
Total Liters Purged	1	1.8	2.8	4.0	5.2				5.2	

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): No odor, clear water, no sediment.

Comments: Set pump at 73.1' <sup>2'</sup> 68'. Note: short tubing, pump set ~ 3ft above screen.

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-30-05 740 Project Site: HVAD

Sample ID: IRPMW06-113005-W

Point Name: IRPMW06

Depth to Well Bottom: 33.44 ft. below top of well casing (TOC)

Depth to Water Level: 28.89 ft. below TOC

Depth to Water Level: 28.77 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 8<sup>25</sup> 4 Throttle = 60 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

**Purge Calc**

Tubing length = 37 ft  
~~37 ft x 5.3~~  
 $37 \times 5.3 \text{ ml/ft} = 196.1 \text{ ml}$   
 $196.1 + 130 = 326.1 \text{ ml}$   
 Rounded to  
1 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	7:20	7:25	7:30	7:35			
PH	7.45	7.49	7.48	7.50		+/- 0.2	7.50
Temperature (°C)	15.0	15.0	15.0	15.1		+/- 2.0 °C	15.1
Specific Conductance <sup>25°C</sup> (µmhos/cm) <del>5/ft</del>	3.93	3.96	3.96	3.95		+/- 3%	<del>3.95</del> 3.95
Turbidity (NTU)	0.0	0.0	0.0	0.0		+/- 10%	0.0
Dissolved Oxygen (mg/L)	1.70	2.37	2.44	2.55		+/- 0.2	2.55
Water Level	28.37	→					28.87
Each Volume Purged (L)	1	1.2	1.0	1.0			
Total Liters Purged	1	2.2	3.2	4.2			4.2

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): No odor, clear liquid w/ no sediment

Comments: Purge set at 31' PID reading = 0.0 ppm

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

**Tetra Tech EM Inc.**  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12-2-05 / 945

Project Site: HWAD

Sample ID: IRPMW07-120205-W

Point Name: IRPMW07

Depth to Well Bottom: 82.7 ft. below top of well casing (TOC)

Depth to Water Level: 9.08 ft. below TOC

Depth to Water Level: 9.08 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 8 Throttle = 65 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

**Purge Calcs**

Tubing length = 88'

$88 \times 5.3 \text{ ml/ft} = 466.4 \text{ ml}$

$466.4 \text{ ml} + 130 \text{ ml}$

$= 596.4 \text{ ml}$

rounded to 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading								Stabilization Criteria	Final	
Time	925	930	935	940						0	
PH	8.28	8.24	8.21	8.20					+/- 0.2	8.20	
Temperature (°C)	16.1	16.2	16.1	16.0					+/- 2.0 °C	16.0	
Specific Conductance (µmhos/cm)	1,486	1,470	1,460	1,450					+/- 3%	1,450	
Turbidity (NTU)	0.0	0.0	0.0	0.0					+/- 10%	0.0	
Dissolved Oxygen (mg/L)	0.62	0.00	0.00	0.00					+/- 0.2	0.00	
Water Level	9.08	→									9.08
Each Volume Purged (L)	1	0.8	0.8	0.8							
Total Liters Purged	1	1.8	2.6	3.4						3.4	

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no odor, no sediment.

Comments PIV = 0.0 ppmV set well at 79.8'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.



Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-2-05, 1125

Project Site: HWA0

Sample ID: IRPMW08A-120205-W

Point Name: IRPMW08A

Purge Calcs

tube length = 40'

40 ft x 5.3 ml/ft  
= 212ml

212 + 130ml = 342ml

rounded to 2L

Depth to Well Bottom: 34.82 ft. below top of well casing (TOC)

Depth to Water Level: 28.15 ft. below TOC

Depth to Water Level: 28.00 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 16 Discharge = 4 Throttle = 60 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1045	1050	1055	1100	1105	1110	1115	1120			1
PH	7.73	7.72	7.70	7.69	7.68	7.67	7.66	7.68		+/- 0.2	7.68
Temperature (°C)	14.9	15.0	15.6	16.0	16.0	16.1	15.8	16.2		+/- 2.0°C	16.2
Specific Conductance (µmhos/cm)	3,750	3,750	3,730	3,730	3,740	3,730	3,750	3,740		+/- 3%	3,740
Turbidity (NTU)	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0		+/- 10%	0.0
Dissolved Oxygen (mg/L)	5.38	4.81	4.30	3.87	3.71	0.00	0.00	0.00		+/- 0.2	0.00
Water Level	<del>28.14</del>	28.16	28.16	28.17	28.17	28.17	28.17	28.17			28.17
Each Volume Purged (L)	1	0.9	0.8	0.7	0.8	0.8	0.8	0.8			0.8
Total Liters Purged	1	1.7	2.5	3.4	4.2	5.0	5.8	6.6			6.6

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no odor, no sediment.

Comments PIA = 0.3 ppmv, set pump at 32'. Collected equipment ~~...~~

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll. of parameters.

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Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/13/08 1025

Project Site: HLWAD

Sample ID: IRPMWBA-121308-W

Point Name: IRPMWBA

Purge Calcs

$34 \text{ ft.} \times 5.3 \text{ mL/ft.} = 181.2 \text{ mL}$   
 $181.2 \text{ mL} + 130 \text{ mL} = 311.2 \text{ mL}$   
 $311.2 \text{ mL} \div 1000 \text{ mL} = 0.311 \text{ L}$

(1L)

Depth to Well Bottom: 34.82 ft. below top of well casing (TOC)

Depth to Water Level: 28.16 ft. below TOC

Depth to Water Level: 28.00 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1L Liters

Control Box Settings: Box # 5135 Refill = 16 Discharge = 4 Throttle = 60 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.26 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	<u>10:15</u>	<del>7:52</del>	<u>1010</u>	<u>1015</u>	<u>1020</u>					
PH	<u>7.52</u>	<u>7.51</u>	<u>7.50</u>	<u>7.48</u>				<u>+/- 0.2</u>	<u>7.48</u>	
Temperature (°C)	<u>13.61</u>	<u>14.48</u>	<u>14.30</u>	<u>14.77</u>				<u>+/- 2.0 °C</u>	<u>14.77</u>	
Specific Conductance (µmhos/cm)	<u>3.68</u>	<u>3.71</u>	<u>3.71</u>	<u>3.72</u>				<u>+/- 3%</u>	<u>3.720</u> <u>3.720</u>	
Turbidity (NTU)	<u>157.0</u>	<u>148.0</u>	<u>144.0</u>	<u>151.0</u>				<u>+/- 10%</u>	<u>151.0</u>	
Dissolved Oxygen (mg/L)	<u>2.17</u>	<u>0.33</u>	<u>0.26</u>	<u>0.24</u>				<u>+/- 0.2</u>	<u>0.24</u>	
Water Level	<u>28.11</u>	<u>28.11</u>	<u>28.11</u>	<u>28.11</u>					<u>28.11</u>	
Each Volume Purged (L)	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>					<u>1</u>	
Total Liters Purged	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>					<u>4</u>	

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): ODORLESS, COLORLESS

Comments: set pump to 30.9', PID = 0.0 ppm

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

\* Resampled for NO2 + NO3 due to missed hold times.

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 11-30-05 / 9:15

Project Site: HWA#

Sample ID: IRPMW09-113005-W

Point Name: IRPMW09

Depth to Well Bottom: +0.97 <sup>10</sup> 81.19 ft. below top of well casing (TOC)

Depth to Water Level: 10.07 ft. below TOC

Depth to Water Level: 10.06 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 4 Throttle = 70 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calcs

Tubing length = 84'

84 ft x 5.3 ml/ft = 445.2

445.2 ml + 130 ml = 575.2 ml

1 L rounded up.

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading						Stabilization Criteria	Final
Time	855	900	905	910				
PH	8.09	8.10	8.10	8.09		+/- 0.2	8.11	
Temperature (°C)	15.8	16.1	16.2	16.2		+/- 2.0°C	16.3	
Specific Conductance <sup>5.3 x m</sup> (µmhos/cm) <sub>stcr</sub>	1.46	1.46	1.47	1.47		+/- 3%	1.47	
Turbidity (NTU)	0.0	0.0	0.0	0.0		+/- 10%	0.0	
Dissolved Oxygen (mg/L)	0.38	0.02	0.00	0.07		+/- 0.2	0.02	
Water Level	10.09	→					10.09	
Each Volume Purged (L)	1	0.8	0.8	0.8				
Total Liters Purged	1	1.8	<del>2.6</del> <sup>2.6</sup>	<del>3.4</del> <sup>3.4</sup>			3.4	

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear liquid, no odor, no sediment

Comments: PII reading = 0.0 ppmv, Pump set at 78'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before col of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-30-05 / 1035

Project Site: HWAD

Sample ID: IRF MW10 - 113005 - W

Point Name: IRF MW10

Purge Calcs

Tubing length = 38'

$38 \text{ ft} \times 5.3 \text{ ml/ft} = 201.4 \text{ ml}$

$201.4 \text{ ml} + 130 \text{ ml} = 331.4 \text{ ml}$

rounded to 1L

Depth to Well Bottom: 32.68 ft. below top of well casing (TOC)

Depth to Water Level: 28.03 ft. below TOC

Depth to Water Level: 28.03 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 4 Throttle = 50 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading								Stabilization Criteria	Final	
Time	1015	1020	1025	1030						1030	
PH	7.48	7.47	7.46	7.46					+/- 0.2	7.46	
Temperature (°C)	16.5	16.6	16.7	16.8					+/- 2.0°C	16.8	
Specific Conductance <sup>mS/cm</sup> (µmhos/cm)	3.82	3.82	3.83	3.83					+/- 3%	3.83 3.83	
Turbidity (NTU)	0.0	0.0	0.0	0.0					+/- 10%	0.0	
Dissolved Oxygen (mg/L)	4.61	4.45	4.40	4.38					+/- 0.2	4.38	
Water Level	28.03	→									28.03
Each Volume Purged (L)	1	0.8	1	0.8							
Total Liters Purged	1	1.8	2.8	3.6						3.6	

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear liquid, no sediment or odor

Comments: Set pump to 30.5'. PIP = 0.0 ppmv

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-6-05, 850 Project Site: HWAD

Sample ID: IRPMW 11 - 120605 - W

Point Name: IRPMW 11

Depth to Well Bottom: 111.78 ft. below top of well casing (TOC)

Depth to Water Level: 106.41 ft. below TOC after sampling

Depth to Water Level: 106.43 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 5 <sup>10</sup> Discharge = 10 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

Purge Calcs

Tube length = 116'  
116 x 5.3 = 614.8  
614.8 ml + 130 ml  
= 744.8 ml  
rounded to 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	8:15	8:20	8:25	8:30	8:35	8:40	8:45			
PH	8.34	8.34	8.35	8.35	8.34	8.34	8.32		+/- 0.2	8.32
Temperature (°C)	23.7	24.0	23.7	23.6	23.5	23.3	23.4		+/- 2.0 °C	23.4
Specific Conductance (µmhos/cm)	1,370	1,360	1,370	1,400	1,400	1,400	1,400		+/- 3%	1,400
Turbidity (NTU)	2.2	2.2	3.5	4.0	3.4	3.3	3.4		+/- 10%	3.4
Dissolved Oxygen (mg/L)	7.16	7.07	6.43	6.31	6.26	6.26	6.27		+/- 0.2	6.27
Water Level	106.4	106.41	106.4	106.4	106.4	106.4	106.4			106.4
Each Volume Purged (L)	1	0.9	0.9	0.9	0.9	0.9	0.9			
Total Liters Purged	1	1.9	2.8	3.7	4.5	5.4	6.3			6.3

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, no odor, no sediment

Comments: PID = 0.0 ppmv set pump to 108.8'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.  
- water quality meter calibrated at (0630)

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Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-6-05 / 1040 Project Site: HWA0

Sample ID: IRPMW12A-120605-W

Point Name: IRPMW-12

Depth to Well Bottom: 77.03 ft. below top of well casing (TOC)

Depth to Water Level: 79.88 ft. below TOC after sampling

Depth to Water Level: 71.92 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 5 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

Purge Calc

80' tubing  
80 x 5.3 ml/ft = 424 ml  
424 ml + 130 = 554 ml  
Rounded to 1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	1022	1027	1032	1037					1037
PH	8.22	8.22	8.23	8.22				+/- 0.2	8.22
Temperature (°C)	26.1	27.1	27.3	27.7				+/- 2.0°C	27.7
Specific Conductance (µmhos/cm)	960	957	953	955				+/- 3%	955
Turbidity (NTU)	<2	<2	<2	<2				+/- 10%	<2
Dissolved Oxygen (mg/L)	3.50	3.35	3.35	3.28				+/- 0.2	3.28
Water Level	71.91	71.91	71.91	71.91					71.91
Each Volume Purged (L)	1	0.9	0.9	0.9					0.9
Total Liters Purged	1	1.9	2.8	3.7					3.7

Duplicate Sample Collected? No  Yes (Sample ID of Duplicate) IRPMW12B-120605-W (1100)

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Water is clear, no odor, no sediment.

Comments PID = 0.0 ppm set pump at 74'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-6-05, 1250

Project Site: HWAD

Sample ID: IRPMW 13-120605-W

Point Name: IRPMW 13

**Purge Calcs**

tube length = 125'

$125 \times 5.3 \text{ ml/ft} = 662.5$

$662.5 \text{ ml} + 130 \text{ ml}$

$= 792.5 \text{ ml}$

Rounded to 1L

Depth to Well Bottom: 120.05 ft. below top of well casing (TOC)

Depth to Water Level: 113.36 ft. below TOC after sample

Depth to Water Level: 113.37 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 12 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.14 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading	1235	1240	1245				Stabilization Criteria	Final
Time	<u>1230</u>	<del>1230</del>	<del>1235</del>	<del>1240</del>	<del>1245</del>				<u>1</u>
PH	<u>8.45</u>	<u>8.45</u>	<u>8.45</u>	<u>8.45</u>				<u>+/- 0.2</u>	<u>8.45</u>
Temperature (°C)	<u>27.1</u>	<u>28.2</u>	<u>28.3</u>	<u>28.4</u>				<u>+/- 2.0 °C</u>	<u>28.4</u>
Specific Conductance (µmhos/cm)	<u>1,340</u>	<u>1,350</u>	<u>1,340</u>	<u>1,330</u>				<u>+/- 3%</u>	<u>1,330</u>
Turbidity (NTU)	<u>&lt;2</u>	<u>&lt;2</u>	<u>&lt;2</u>	<u>&lt;2</u>				<u>+/- 10%</u>	<u>&lt;2</u>
Dissolved Oxygen (mg/L)	<u>2.92</u>	<u>2.61</u>	<u>2.50</u>	<u>2.42</u>				<u>+/- 0.2</u>	<u>2.42</u>
Water Level	<u>113.36</u>	<u>113.36</u>	<u>113.36</u>	<u>113.36</u>					<u>113.36</u>
Each Volume Purged (L)	<u>1</u>	<u>0.7</u>	<u>0.7</u>	<u>0.7</u>					<u>0.7</u>
Total Liters Purged	<u>1</u>	<u>1.7</u>	<u>2.4</u>	<u>3.3</u>					<u>3.3</u>

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, odorless, no sediment.

Comments: PIG = 0.0 ppm, Set pump at 116.2'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12-1-05 / 1305 Project Site: HWA1

Sample ID: IRPMW14A-120105-W

Point Name: IRPMW14

Depth to Well Bottom: 95.5 ft. below top of well casing (TOC)

Depth to Water Level: 49.05 ft. below TOC

Depth to Water Level: 49.04 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Baifer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 12 Discharge = 5 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calc

Tubing length = 102.5ft  
 $102.5ft \times 5.3ml/ft = 543.25ml$   
 $543.25 + 130 = 673.25ml$   
 Round to 2L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1220	1225	1230	1235	1240	1245	1250	1255	1300		1300
PH	8.21	8.20	8.20	8.19	8.19	8.18	8.18	8.18	8.17	+/- 0.2	8.17
Temperature (°C)	22.6	22.7	22.8	22.7	22.7	22.8	22.8	22.7	22.7	+/- 2.0°C	22.7
Specific Conductance (µmhos/cm)	1,260	1,260	1,270	1,270	1,270	1,270	1,270	1,270	1,270	+/- 3%	1,270
Turbidity (NTU)	220	189	161	123	103	75.1	63.7	53.3	44.7	+/- 10%	44.7
Dissolved Oxygen (mg/L)	0.45	0.24	0.13	0.02	0.00	0.00	0.00	0.00	0.00	+/- 0.2	0.00
Water Level	49.14	49.14	49.18	49.18	49.17	49.17	49.17	49.17	49.17		49.17
Each Volume Purged (L)	1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8		
Total Liters Purged	2	1.8	2.6	3.4	4.2	5.0	5.8	6.6	7.4		7.4

Duplicate Sample Collected? No  (Sample ID of Duplicate) IRPMW14B-120105-W (1320)

MS/MSD Sample Collected?  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): \_\_\_\_\_

Comments PID = 0.3 ppmv, set pump at 92.5'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Note: Turbidity never fully stabilized, 8 readings taken in parameters.

**Tetra Tech EM Inc.**  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 2/13/05 0855

Project Site: F/WAD

Sample ID: IRmw14A-12305-W

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Point Name: IRmw14

Purge Calcs

$105 \text{ ft} \times 5.3 \text{ ml/ft} = 556.5 \text{ ml}$   
 $556.5 \text{ ml} + 130 \text{ ml} = 686.5 \text{ ml}$   
 $686.5 \text{ ml} = 0.6865 \text{ L} = .69 \text{ L}$

(1L)

Depth to Well Bottom: 95.5 ft. below top of well casing (TOC)

Depth to Water Level: 49.20 ft. below TOC chip comp

Depth to Water Level: 49.06 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1L Liters

Control Box Settings: Box # 05135 Refill = 12 Discharge = 5 Throttle = 55 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.19 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0810	0815	0820	0825	0830	0835	0840	0845	0850		
PH	8.09	8.10	8.10	8.10	8.14	8.10	8.19	8.07	8.17	+/- 0.2	8.07
Temperature (°C)	17.81	18.05	18.41	18.46	18.29	18.42	18.66	18.85	18.85	+/- 2.0°C	18.85
Specific Conductance (µmhos/cm)	377	385	385	394	397	396	399	397	395	+/- 3%	395
Turbidity (NTU)	0	0	0	0	0	0	0	0	0	+/- 10%	0
Dissolved Oxygen (mg/L)	6.73	5.31	5.13	4.61	4.17	3.72	3.58	3.01	2.70	+/- 0.2	2.70
Water Level	49.19	49.19	49.19	49.19	49.19	49.19	49.19	49.19	49.19		49.19
Each Volume Purged (L)	1	.8	.8	.8	.8	.8	.8	.8	.8		.8
Total Liters Purged	1	1.8	2.6	3.4	4.2	5.0	5.8	6.6	7.4		7.4

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) IRmw14B-12305-W e oxc

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): colorless, odorless

Comments PTD meter reads 0.2 ppm set pump to 92.5'

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

\* Resampled for NO2 + NO3 due to missed hold times

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-2-05 / 755 Project Site: KWAD  
 Sample ID: IRPMW15-120205-W

Point Name: IRPMW15

Depth to Well Bottom: 57.65 ft. below top of well casing (TOC)

Depth to Water Level: 51.15 ft. below TOC

Depth to Water Level: 51.13 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 12 Discharge = 4 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calc

Tubing = 62 ft  
 $62 \text{ ft} \times 5.3 \text{ ml/ft} = 328.6 \text{ ml}$   
 $328.6 \text{ ml} + 130 \text{ ml} = 458.6 \text{ ml}$   
~~458.6 ml~~  
 rounded to  
 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	7:25	7:30	7:35	7:40	7:45	7:50			7:50
PH	7.11	7.25	7.32	7.33	7.33	7.33		+/- 0.2	7.33
Temperature (°C)	19.6	20.0	20.3	20.7	20.4	20.5		+/- 2.0 °C	20.5
Specific Conductance (µmhos/cm)	1,370	1,330	1,320	1,310	1,300	1,300		+/- 3%	1,300
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0		+/- 10%	0.0
Dissolved Oxygen (mg/L)	2.24	2.53	2.24	0.00	0.00	0.00		+/- 0.2	0.00
Water Level	51.21	51.21	51.21	→					51.21
Each Volume Purged (L)	1	0.7	0.8	0.8	0.8	0.9			0.9
Total Liters Purged	1	1.7	2.5	3.3	4.1	5.0			5.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Water is clear, no odor, no sediment.

Comments: Set pump to 53.9', PID=0.0ppm equipment calibrated before sampling @ 65'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

**Tetra Tech EM Inc.**  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12/13/05 0736 Project Site: HLWAD

Sample ID: IRPMWIS-121305-W #

Point Name: IRPMWIS

**Purge Calcs**

$61 \text{ ft.} \times 5.3 \text{ ml/ft.} = 323.3 \text{ mL}$   
 $323.3 \text{ mL} + 130 \text{ mL} = 453.3 \text{ mL}$   
 $453.3 \text{ mL} \div 1.05 \text{ mL/L} = .45 \text{ L}$

**1L**

Depth to Well Bottom: 57.65 ft. below top of well casing (TOC)

Depth to Water Level: 51.23 ft. below TOC After Sample

Depth to Water Level: 51.17 ft below TOC prior to sampling

Method of Purging: Bladder Pump  Submersible Pump   
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters  
 Four-inch well 1 Liters

Control Box Settings: Box # 5135 Refill = 12' Discharge = 4 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading						Stabilization Criteria	Final
		0711	0716	0721	0726	0731		
Time	0711	0716	0721	0726	0731	0736		
PH	7.05	7.07	7.07	7.10	7.10		+/- 0.2	7.10
Temperature (°C)	17.20	19.11	19.43	19.53	19.45		+/- 2.0 °C	19.45
Specific Conductance (µmhos/cm)	861	570	312	872	372		+/- 3%	872 372 (34)
Turbidity (NTU)	0	0	0	0	0		+/- 10%	0
Dissolved Oxygen (mg/L)	1.57	.76	.53	.45	.35		+/- 0.2	.35
Water Level	51.22	51.22	51.22	51.22	51.22			
Each Volume Purged (L)	1	1	1	1	1			
Total Liters Purged	1	2	3	4	5			5

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): ODORLESS, COLORLESS

Comments: Set pump to 54.3', PID = 0.0ppm

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Calibrated Horiba U-22 PRIOR THIS WELL, THIS IS 1<sup>ST</sup> WELL OF THE DAY.

\* Resampled for NO2 + NO3 due to missed hold times.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-5-05 / 855 Project Site: HWAU

Sample ID: IRPMW 16 - 120505 - W

Point Name: IRPMW - 16

Depth to Well Bottom: 92.45 ft. below top of well casing (TOC)

Depth to Water Level: 50.23 ft. below TOC at the sampling

Depth to Water Level: 50.25 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 5 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

Purge Calcs

97.5' of tubing  
97.5 x 5.3 ml/ft = 516.75  
516.75 + 130 = 646.75 ml  
rounded to 1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading	330								Stabilization Criteria	Final
		810	815	820	825	<del>830</del>	835	840	845		
Time	810	815	820	825	<del>830</del>	835	840	845	850		850
PH	7.36	7.35	7.52	7.58	7.59	7.59	7.59	7.58	7.58	+/- 0.2	7.58
Temperature (°C)	18.1	18.3	18.4	18.7	18.1	18.6	18.9	19.00	18.9	+/- 2.0°C	18.9
Specific Conductance (µmhos/cm)	1,530	1,490	1,480	1,470	1,480	1,470	1,460	1,460	1,450	+/- 3%	1,450
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	+/- 10%	0.0
Dissolved Oxygen (mg/L)	7.47	6.75	6.25	5.62	4.84	3.86	3.18	2.45	0.00	+/- 0.2	0.00
Water Level	50.29	50.29	50.29	50.29	50.29	50.29	50.29	50.29	50.29		50.29
Each Volume Purged (L)	1	1	1	1	1	1	1	1	1		1
Total Liters Purged	1	2	3	4	5	6	7	8	9		9

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, odorless, no sediment.

Comments IID = 1.6 Jet pump at 37.5' Equipment was calibrated at 0700.

Sample(s) Collected By: A. McDonald, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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Note: Temps were low initially (100.13°F), equipment was not functioning.

\* D.O. never stabilized, slowly increased

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-2-05 / 1335 Project Site: HWA0

Sample ID: IRPMW17-120205-w

Point Name: IRPMW17

Depth to Well Bottom: 57.47 ft. below top of well casing (TOC)

Depth to Water Level: 51.04 ft. below TOC

Depth to Water Level: 51.04 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 10 Throttle = 70 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.3 Liters/Min

Purge Calcs

62ft of tubing  
 $62 \times 5.3 \text{ ml/ft} = 328.6 \text{ ml}$   
 $328.6 \text{ ml} + 130 \text{ ml}$   
 $= 458.6 \text{ ml}$   
 Rounded to 1L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading	* Stabilization Criteria								Final	
Time	1250	1255	1300	1305	1310	1315	1320	1325	1330		
PH	7.34	7.27	7.26	7.27	7.27	7.26	7.26	7.25	7.26	+/- 0.2	7.26
Temperature (°C)	20.0	20.0	20.1	20.1	20.1	20.1	20.1	20.0	20.1	+/- 2.0 °C	20.1
Specific Conductance (µmhos/cm)	1,400	1,400	1,390	1,390	1,400	1,400	1,400	1,400	1,400	+/- 3%	1,400
Turbidity (NTU)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	+/- 10%	0.0
Dissolved Oxygen (mg/L)	6.64	6.09	5.66	5.23	4.32	3.70	3.26	2.80	2.46	+/- 0.2	2.46
Water Level	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05	51.05		51.05
Each Volume Purged (L)	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		1.5
Total Liters Purged	1.0	2.5	4.0	5.5	7.0	8.5	10	11.5	13		13

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no odor, no sediment

Comments PID = 0.0 ppmv. Set pump at 54'. Equipment rinsate sample collected.

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

Equipment Rinsate: IRPMW16-120205-w

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\* Note: D.O. never stabilized, it slowly decreased towards 0.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-5-05 / 1040 Project Site: MWAD

Sample ID: IRPMW18-120505-W

Point Name: IRPMW18

Depth to Well Bottom: 109.6 ft. below top of well casing (TOC)

Depth to Water Level: 68.35 ft. below TOC after sampling

Depth to Water Level: 68.37 ft below TOC prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 7 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

Purge Calcs

115' tubing length  
115 x 5.3 ml / ft  
= 609.3 ml  
609.3 + 130 = 739.3 ml  
Rounded to 740 <sup>ml</sup> 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	1020	1025	1030	1035						1035
PH	7.51	7.43	7.47	7.46					+/- 0.2	7.40
Temperature (°C)	14.6	14.7	14.8	14.1					+/- 2.0 °C	14.1
Specific Conductance (µmhos/cm)	1,400	1,410	1,410	1,420					+/- 3%	1,420
Turbidity (NTU)	0.0	0.0	0.0	0.0					+/- 10%	0.0
Dissolved Oxygen (mg/L)	0.30	0.02	0.00	0.00					+/- 0.2	0.00
Water Level	68.38	68.38	68.38	68.38						68.38
Each Volume Purged (L)	1	0.9	0.9	0.9						0.9
Total Liters Purged	1	1.9	2.8	3.7						3.7

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, odorless, no sediment.

Comments PID = 0.0 ppm, set pump at 106.5'

Sample(s) Collected By: A. McKinnel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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**Tetra Tech EM Inc.**  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12-5-05, 1235

Project Site: HWAD

Sample ID: IRPMW19-120505-W

Point Name: IRPMW19

Depth to Well Bottom: 70.19 ft. below top of well casing (TOC)

Depth to Water Level: 65.61 ft. below TOC after sampling

Depth to Water Level: 65.65 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 7 Throttle = 70 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

**Purge Calcs**

Tube length = 76'

$76 \times 5.3 \text{ ml/ft} = 402.8'$

$402.8 + 130 = 532.8 \text{ ml}$

Rounded to 1 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	1213	1218	1223	1228			12
PH	7.07	7.05	7.04	7.04		+/- 0.2	7.04
Temperature (°C)	14.0	14.4	14.3	14.3		+/- 2.0°C	14.3
Specific Conductance (µmhos/cm)	1,220	1,210	1,220	1,220		+/- 3%	1,220
Turbidity (NTU)	0.0	0.0	0.0	0.0		+/- 10%	0.0
Dissolved Oxygen (mg/L)	0.54	0.31	0.21	0.14		+/- 0.2	0.14
Water Level	65.64	65.64	65.64	65.64			65.64
Each Volume Purged (L)	1	1	1	1			1
Total Liters Purged	<u>1</u>	2	3	4			4

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes MS/MSD sample collected (triplicate volume)

Sample Remarks (odors, colors, sediment): Clear, odorless, no sediment

Comments: PID = 0.2 ppmv set pump @ 67.1 67.2 67.3

Sample(s) Collected By: PJT = A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

NOTE: Equipment rinsate collected after this well. (IRPMW19-120505-WER) (sample time 1400)

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12/14/05, 13:17

Project Site: HWAD

Sample ID: IRPMW20-121405-W

Point Name: IRPMW20

**Purge Calcs**

129 ft x 5.3 ml/ft = 683.7 ml  
 683.7 ml + 130 ml = 813.7 ml  
 813.7 ml ÷ 100 ml = 8.14 L

1L

Depth to Well Bottom: 118.25 ft. below top of well casing (TOC)

Depth to Water Level: 71.61 ft. below TOC

Depth to Water Level: 71.61 ft below TOC prior to sampling

Method of Purging:  Bladder Pump Bailer       Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 2 Liters

Control Box Settings: Box # US135 Refill = 7 Discharge = 10 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.35 Liters/Min

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading						Stabilization Criteria	Final
		5	0	5	0	5		
Time	1252	1257	13:2	1307	1312	1317		
PH	7.75	7.72	7.72	7.72	7.73		+/- 0.2	7.73
Temperature (°C)	23.45	24.05	23.07	24.11	24.26		+/- 2.0 °C	24.26
Specific Conductance (µmhos/cm)	145	147	148	149	148		+/- 3%	148 <sup>2</sup> 1480
Turbidity (NTU)	0	0	0	0	0		+/- 10%	0
Dissolved Oxygen (mg/L)	2.53	2.2	1.56	1.42	1.40		+/- 0.2	1.40
Water Level	71.61	71.61	71.61	71.61	71.61			71.61
Each Volume Purged (L)	1	1.5	1.5	1.5	1.5			
Total Liters Purged	1	2.5	4	5.5	7			7

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): \_\_\_\_\_

Comments PTD = 0.0 g/g      SET TEMP TO 116.4 °F 95.5 °C

Sample(s) Collected By: DK & A

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/1/05 1120 Project Site: HWAD  
 Sample ID: IRPMW21A -121405-W

Point Name: IRPMW21

Depth to Well Bottom: 76.25 ft. below top of well casing (TOC)  
 Depth to Water Level: 71.35 ft. below TOC *After sample*  
 Depth to Water Level: 71.91 ft below TOC prior to sampling

**Purge Calcs**

$31 \text{ ft} \times 5.3 \frac{\text{ml}}{\text{ft}} = 420.3 \text{ mL}$   
 $420.3 \text{ mL} + 130 \text{ mL} = 550.3 \text{ mL}$   
 $550.3 \text{ mL} \div 1000 \frac{\text{L}}{\text{mL}} = 0.55 \text{ L}$

1L

Method of Purging: Bladder Pump Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters  
 Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 3 Throttle = 65 psi  
 Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.35 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading	1	2	3	4	5	6	7	Stabilization Criteria	Final
Time	10:55	11:00	11:05	11:10	11:15					
PH	7.15	7.12	7.11	7.10	7.12				+/- 0.2	7.12
Temperature (°C)	22.02	22.45	22.71	22.45	22.70				+/- 2.0 °C	22.70
Specific Conductance (µmhos/cm)	6.918	9.19	9.16	9.15	9.11				+/- 3%	9.11
Turbidity (NTU)	2.6	5.3	6.6	6.3	6.9				+/- 10%	6.9
Dissolved Oxygen (mg/L)	1.83	1.38	0.00	0	0				+/- 0.2	0
Water Level	71.90	71.90	71.90	71.90	71.90					71.90
Each Volume Purged (L)	1	1.5	1.5	1.5	1.5					
Total Liters Purged	1	2.5	4	5.5	7					7

Duplicate Sample Collected? No  Yes  (Sample ID of Duplicate) IRPMW21B -121405-W @ 12:00

MS/MSD Sample Collected? No  Yes  IRPMW21A-121405-W X3

Sample Remarks (odors, colors, sediment): ODORLESS, COLORLESS

Comments PID = 0.0 ppm SET PUMP TO 74.2'

Sample(s) Collected By: DK AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-8-05 1300 Project Site: HWAD

Sample ID: IRPMW22-120805-W

Point Name: IRPMW22

Depth to Well Bottom: 148.1 ft. below top of well casing (TOC)

Depth to Water Level: 66.02 ft. below TOC after sampling

Depth to Water Level: 65.97 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 21 Discharge = 10 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.1 Liters/Min

Purge Calcs

tub. length = 153  
 $153 \times 5.3 \text{ ml/ft} = 810.9$   
 $810.9 + 130 = 940.9 \text{ ml}$   
 Round to 1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading						Stabilization Criteria	Final		
Time	1235	1240	1245	1250	1255			1255		
PH	7.64	7.65	7.65	7.65	7.65		+/- 0.2	7.65		
Temperature (°C)	15.1	15.6	15.0	15.6	15.3		+/- 2.0°C	15.3		
Specific Conductance (µmhos/cm)	0.954	0.964	0.967	0.970	0.970		+/- 3%	0.970		
Turbidity (NTU)	<2	<2	<2	<2	<2		+/- 10%	<2		
Dissolved Oxygen (mg/L)	0.88	0.40	0.20	0.07	0.00		+/- 0.2	0.00		
Water Level	66	66	66	66	66.02			66.02		
Each Volume Purged (L)	1	0.5	0.5	0.5	0.5			0.5		
Total Liters Purged	1	1.5	2	2.5	3			3.0		

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no odor, no sediment.

Comments: PTD = 0.2 perm, pump set at 145'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Note: Collected Equipment Rinsate  
 Sample IRPMW22-120805-WER  
 after sampling this well.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-8-05 / 1500 Project Site: HWA0  
 Sample ID: IRPMW23-120805-W

Point Name: IRPMW23

Depth to Well Bottom: 86.6 ft. below top of well casing (TOC)

Depth to Water Level: 81.03 ft. below TOC after sampling

Depth to Water Level: 81.01' ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 5 Throttle = 78 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

Purge Calcs

tube length = 90ft  
 $90 \times 5.3 \text{ ml/ft} = 477 \text{ ml}$   
 $477 + 130 \text{ ml} =$   
 $607 \text{ ml}$   
 Rounded to 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	1441	1446	1451	1456						11
PH	7.91	7.91	7.90	7.90					+/- 0.2	7.90
Temperature (°C)	16.0	16.7	16.6	15.8					+/- 2.0 °C	15.8
Specific Conductance (µmhos/cm)	702	718	720	724					+/- 3%	724
Turbidity (NTU)	2.2	2.7	2.5	2.4					+/- 10%	2.4
Dissolved Oxygen (mg/L)	7.80	7.75	7.75	7.71					+/- 0.2	7.71
Water Level	81.03	81.03	81.03	81.03						81.03
Each Volume Purged (L)	1	0.9	0.9	0.9						0.9
Total Liters Purged	1	1.9	2.8	3.7						3.7

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no odor, no sediment.

Comments PID = 0.0ppm Set pump to 83.3'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

THH 11

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05, 1335 Project Site: HwAD

Sample ID: IRPMW24-120705-W

Point Name: IRPMW24

Depth to Well Bottom: 155.6 ft. below top of well casing (TOC)

Depth to Water Level: 80.26 ft. below TOC

Depth to Water Level: 80.26 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 12 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.13 Liters/Min

Purge Calc

tube length = 160'

$160 \times 5.3 = 848 \text{ ml}$

$848 \text{ ml} + 130 \text{ ml}$

$= 978 \text{ ml}$

Rounded to 1 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	1305	1310	1315	1320	1325	1330		1330	
PH	7.80	7.79	7.79	7.78	7.77	7.76	+/- 0.2	7.76	
Temperature (°C)	16.3	16.3	16.4	16.5	16.4	16.4	+/- 2.0 °C	16.4	
Specific Conductance (µmhos/cm)	1,376	1,380	1,380	1,380	1,370	1,380	+/- 3%	1,380	
Turbidity (NTU)	<2	<2	<2	<2	<2	<2	+/- 10%	<2	
Dissolved Oxygen (mg/L)	4.36	3.91	3.63	3.46	3.39	3.33	+/- 0.2	3.33	
Water Level	80.34	80.25	80.25	80.25	80.25	80.25		80.25	
Each Volume Purged (L)	1	0.7	0.7	0.6	0.6	0.6		0.6	
Total Liters Purged	1	1.7	2.4	3.0	3.6	4.2		4.2	

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Water is clear, odorless, no sediment.

Comments: PID = 0.1 ppm Set pump to 152.1'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

HL III

Note: Equipment rinsate collected after this well.

IRPMW24-120705-WER (1415)

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05 / 1200

Project Site: HWA0

Sample ID: IRPMW25-120705-W

Point Name: IRPMW25

Depth to Well Bottom: 117.35 ft. below top of well casing (TOC)

Depth to Water Level: 80.51 ft. below TOC *after sampling*

Depth to Water Level: 80.47 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 16 Discharge = 14 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calcs

$114.1' \times 5.3 \text{ ml/ft} =$   
 $604.73 + 130 \text{ ml} =$   
 $734.73 \text{ ml}$   
*rounded to 1.0 l*

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	1137	1142	1147	1152						1
PH	7.31	7.86	7.88	7.87					+/- 0.2	7.81
Temperature (°C)	16.6	17.0	17.2	17.4					+/- 2.0 °C	17.4
Specific Conductance (µmhos/cm)	1,350	1,380	1,380	1,380					+/- 3%	1,380
Turbidity (NTU)	<2	<2	<2	<2					+/- 10%	<2
Dissolved Oxygen (mg/L)	2.80	1.74	1.74	1.55					+/- 0.2	1.55
Water Level	80.57	80.58	80.58	80.58						80.58
Each Volume Purged (L)	1	0.9	0.8	0.8						0.8
Total Liters Purged	1	1.9	2.7	3.5						3.5

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): No odor, no color, some sediment observed.

Comments PIQ = 0.0 ppmV set pump at 114.1'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

THH1

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05, 0825 Project Site: HWAD

Sample ID: IRP MW 26-120705-W

Point Name: IRP MW 26

Depth to Well Bottom: 143.2 ft. below top of well casing (TOC)

Depth to Water Level: 86.25 ft. below TOC after sampling

Depth to Water Level: 86.26 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Purge Calcs

148' +/- length  
148 x 5.3 ml/ft  
= 783.3 ml  
783.3 + 130  
= 913.3

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 8 Discharge = 6 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.1 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading					Stabilization Criteria	Final		
Time	0805	0810	0815	0820			0820		
PH	7.82	7.80	7.81	7.84		+/- 0.2	7.84		
Temperature (°C)	11.2	11.8	12.2	12.4		+/- 2.0 °C	12.4		
Specific Conductance (µmhos/cm)	1,330	1,320	1,330	1,320		+/- 3%	1,320		
Turbidity (NTU)	<2	<2	<2	<2		+/- 10%	<2		
Dissolved Oxygen (mg/L)	4.89	4.59	4.47	4.39		+/- 0.2	4.39		
Water Level	86.25	86.25	86.25	86.25			86.25		
Each Volume Purged (L)	1	0.6	0.5	0.5			0.5		
Total Liters Purged	1	1.6	2.1	2.6			2.6		

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no color, no sediment

Comments: PID = 0.0 ppm set pump to 139.9'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.  
- Calibrated water quality meter 0630.

MLL

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05 / 10:55 Project Site: HVAD

Sample ID: IRP MW27-130705-W

Point Name: IRP MW27

Depth to Well Bottom: 94.87 ft. below top of well casing (TOC)

Depth to Water Level: 87.56 ft. below TOC after sampling

Depth to Water Level: 87.57 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 4 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calcs

98' tubing  
 $78 \times 5.3 \text{ ml/ft}$   
 $= 513.4 \text{ ml}$   
 $513.4 + 130$   
 $= 643.4 \text{ ml}$   
 round to 1 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	0945	0950	0955	1000						1
PH	7.85	7.86	7.85	7.83					+/- 0.2	7.83
Temperature (°C)	17.3	17.6	17.5	17.8					+/- 2.0 °C	17.8
Specific Conductance (µmhos/cm)	1,260	1,280	1,290	1,290					+/- 3%	1,290
Turbidity (NTU)	<2	<2	<2	<2					+/- 10%	<2
Dissolved Oxygen (mg/L)	4.79	4.60	4.58	4.55					+/- 0.2	4.55
Water Level	87.61	87.61	87.61	87.61						87.61
Each Volume Purged (L)	1	0.8	0.8	0.8						0.8
Total Liters Purged	1	1.8	2.6	3.4						3.4

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, no odor, no sediment.

Comments: PO = 0.0 ppm, set pump to 90.3'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

7771

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/07/05 / 1520 Project Site: HWAD

Sample ID: IAP MW 28 - 120705-W

Point Name: IAP MW 28

Depth to Well Bottom: 111.29 ft. below top of well casing (TOC)

Depth to Water Level: 73.10 ft. below TOC after purging

Depth to Water Level: 73.05 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 12 Discharge = 10 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.23 Liters/Min

Purge Calcs

116' tubing,  
116 x 5.3 = 614.8 ml  
614.8 ml + 744.8 ml  
Rounded to 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading						Stabilization Criteria	Final
Time	1455	1500	1505	1510	1515			1515
PH	7.73	7.71	7.69	7.70	7.68		+/- 0.2	7.68
Temperature (°C)	16.4	16.8	17.1	16.9	17.0		+/- 2.0 °C	17.0
Specific Conductance (µmhos/cm)	1,360	1,360	1,360	1,370	1,370		+/- 3%	1,370
Turbidity (NTU)	<2	<2	<2	<2	<2		+/- 10%	<2
Dissolved Oxygen (mg/L)	1.29	0.95	0.80	0.72	0.66		+/- 0.2	0.66
Water Level	73.16	73.17	73.17	73.17	73.17			73.17
Each Volume Purged (L)	1	1	0.9	0.9	0.9			0.9
Total Liters Purged	1	2	2.9	3.8	4.7			4.7

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): High sediment observed, pump may have disturbed bottom.

Comments PI = 0.0 perm, Pump set at 108'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-08-05, 0800 Project Site: Hwan

Sample ID: IAPMW29-120805-w

Point Name: IAPMW29

**Purge Calcs**

tube length = 106'  
 $106 \times 5.3 \text{ ml/ft} = 561.8 \text{ ml}$   
 $561.8 \text{ ml} + 130 \text{ ml}$   
 $= 691.8 \text{ ml}$   
 rounded to 1L

Depth to Well Bottom: 101.84 ft. below top of well casing (TOC)

Depth to Water Level: 94.32 ft. below TOC after sampling

Depth to Water Level: 94.31 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 7 Throttle = 75 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.14 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0740	0745	0750	0755							C
PH	7.75	7.74	7.75	7.74						+/- 0.2	7.74
Temperature (°C)	15.9	16.3	16.2	16.3						+/- 2.0 °C	16.3
Specific Conductance (µmhos/cm)	1,450	1,460	1,460	1,460						+/- 3%	1,460
Turbidity (NTU)	<2	<2	<2	<2						+/- 10%	<2
Dissolved Oxygen (mg/L)	7.95	7.80	7.69	7.61						+/- 0.2	7.61
Water Level	94.33	94.33	94.33	94.33							94.33
Each Volume Purged (L)	1	0.7	0.7	0.7							0.7
Total Liters Purged	1	1.7	2.4	3.1							3.1

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): no odor, clear, no sediment

Comments: RII = 1.4 ppmV set pump at 97.8'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before coll of parameters.

THH

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 11-5-05 0900

Project Site: HWAD

Sample ID: IAPMW 20-120505-W

Point Name: IAPMW 20

Depth to Well Bottom: 168.53 ft. below top of well casing (TOC)

Depth to Water Level: 85.08 ft. below TOC

Depth to Water Level: 85.13 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 1091 Refill = 9 Discharge = 15 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.15 Liters/Min

**Purge Calcs**

$164 \times 5.3 \text{ ml/ft} =$   
 $869.2 + 130 =$   
 $999.2$   
rounded to 1.5 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	0928	0933	0938	0943	0948	0953	0958		0958	
PH	8.26	8.31	8.31	8.31	8.33	8.32	8.32	+/- 0.2	8.32	
Temperature (°C)	17.76	18.4	17.5	17.5	17.5	17.5	17.5	+/- 2.0°C	17.5	
Specific Conductance (µmhos/cm)	1520	1540	1560	1530	1540	1520	1520	+/- 3%	1530	
Turbidity (NTU)	0.0	0.0	< 2	< 2	< 2	< 2	< 2	+/- 10%	< 2	
Dissolved Oxygen (mg/L)	0.98	0.90	0.70	0.72	0.64	0.57	0.52	+/- 0.2	0.52	
Water Level	85.11	85.13	85.13	85.13	85.13	85.13	85.13		85.13	
Each Volume Purged (L)	1.5	750	600	600	600	600	600		-	
Total Liters Purged	1.5	2.25	2.85	3.45	4.05	4.65	5.25		5.25	

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, colorless, odorless

Comments: PI0 = 0.0 ppm, Pump set at 164'

Sample(s) Collected By: Rich Howell, Guy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

- water quality meter calibrated @ 0720.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-5-05 1100

Project Site: HWAD

Sample ID: IAPMW31-120505-W

Point Name: IAPMW31

Depth to Well Bottom: 90.45 ft. below top of well casing (TOC)

Depth to Water Level: 86.19 ft. below TOC

Depth to Water Level: 86.19 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # 1015 Refill = 15 Discharge = 12 Throttle = 50 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

Purge Calcs

89' X 5.3 ml/ft =  
4,71.7 + 130 =  
601.7  
rounded to 1.0 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading						Stabilization Criteria	Final		
Time	1016	1029	1034	1039	1044					
PH	8.07	8.05	8.05	8.05	8.04		+/- 0.2	8.0		
Temperature (°C)	18.9	19.0	19.8	19.6	19.0		+/- 2.0°C	19.0		
Specific Conductance (µmhos/cm)	1540	1560	1580	1560	1580		+/- 3%	1580		
Turbidity (NTU)	<2	4.0	4.3	3.7	3.8		+/- 10%	3.8		
Dissolved Oxygen (mg/L)	7.1	7.2	7.0	6.9	6.9		+/- 0.2	6.9		
Water Level	86.19	86.19	86.19	86.18	86.18			86.18		
Each Volume Purged (L)	1.0	1.0	1.0	1.0	1.0			-		
Total Liters Purged	1.0	2.0	3.0	4.0	5.0			5.0		

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): (clear, colorless, odorless)

Comments PID = 0.0 ppm, pump set at 89'

Sample(s) Collected By: Rich Howell, Boy Fleen

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-5-05, 1430 Project Site: HWA10

Sample ID: IAPMW32-120505-W

Point Name: IAPMW32

Depth to Well Bottom: 178.3 ft. below top of well casing (TOC)

Depth to Water Level: 90.28 ft. below TOC

Depth to Water Level: 90.28 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 1291 Refill = 8 Discharge = 17 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.22 Liters/Min

Purge Calcs

$174' \times 5.3 \text{ ml/ft} =$   
 $922.2 + 130$   
 $1052.2$   
 $\text{rounded to } 1.5 \text{ L}$

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	1350	1355	1400	1405	1410	1415	1420			1420
PH	8.27	8.26	8.26	8.26	8.26	8.21	8.22		+/-0.2	8.22
Temperature (°C)	20.5	20.5	20.5	20.5	20.5	20.5	20.5		+/-2.0°C	20.5
Specific Conductance (µmhos/cm)	1560	1560	1550	1570	1560	1560	1570		+/-3%	1570
Turbidity (NTU)	22	22	22	22	22	22	22		+/-10%	22
Dissolved Oxygen (mg/L)	0.93	0.57	0.30	0.16	0.07	0.0	0.0		+/-0.2	0.0
Water Level	90.29	90.28	90.28	90.28	90.28	90.28	90.28			90.28
Each Volume Purged (L)	1.5	1.0	1.0	1.0	1.0	1.0	1.0			-
Total Liters Purged	1.5	2.5	3.5	4.5	5.5	6.5	7.5			7.5

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, colorless, odorless

Comments: PI0 = 0.0 ppm, Pump set at 174'

Sample(s) Collected By: Nick Howell / Amy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

- Equipment rinsate collected after this well  
IAPMW32-120505-WEN  
- possible malfunction of DO meter?

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12-6-05 0810

Project Site: H/WAD

Sample ID: IRPMW33-120605-W

Point Name: IRPMW33

Purge Calcs

95 x 5.3 ml/ft  
502.5 + 130 ml =  
632.5 ml  
rounded to 1.0 L

Depth to Well Bottom: 98.93 ft. below top of well casing (TOC)

Depth to Water Level: 90.87 ft. below TOC

Depth to Water Level: 90.90 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # rent Refill = 10 Discharge = 14 Throttle = 50 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.29 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	0738	0747	0748	0753						C
PH	8.04	8.10	8.10	8.10					+/- 0.2	8.10
Temperature (°C)	16.0	16.5	16.8	16.9					+/- 2.0°C	16.9
Specific Conductance (µmhos/cm)	1530	1520	1510 <del>1520</del>	1510					+/- 3%	1510
Turbidity (NTU)	<2	<2	<2	<2					+/- 10%	<2
Dissolved Oxygen (mg/L)	6.4	6.4	6.45	6.40					+/- 0.2	6.4
Water Level	90.89	90.90	90.90	90.90						90.9
Each Volume Purged (L)	1.0	1.2	1.0	1.2						-
Total Liters Purged	1.0	2.2	3.2	4.4						4.4

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PID = 0.0 ppm, Pump set at 95'

Sample(s) Collected By: Rich Howell, Ray Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

*- water quality meter calibrated before this well (10645)*

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12-6-05 0915 0910 AM Project Site: HUAD

Sample ID: IAPMW34-120605-W

Point Name: IAPMW34

Depth to Well Bottom: 143.8 ft. below top of well casing (TOC)

Depth to Water Level: 101.20 ft. below TOC

Depth to Water Level: 101.21 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # right Refill = 10 Discharge = 15 Throttle = 65 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.26 Liters/Min

Purge Calcs

137' x 5.3 ml/ft  
726.1 + 130 ml =  
856.1 ml  
rounded to 1.0 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0912	0917	0922	0927							0927
PH	8.04	8.02	8.04	8.04						+/- 0.2	8.04
Temperature (°C)	19.5	21.3	21.2	21.2						+/- 2.0 °C	21.2
Specific Conductance (µmhos/cm)	1560	1570	1560	1560						+/- 3%	1560
Turbidity (NTU)	2	2	2	2						+/- 10%	2
Dissolved Oxygen (mg/L)	5.3	5.2	5.2	5.1						+/- 0.2	5.1
Water Level	101.21	101.22	101.21	101.21							101.21
Each Volume Purged (L)	1.0	1.0	1.0	1.0							-
Total Liters Purged	1.0	2.0	3.0	4.0							4.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless water

Comments P10 = 0.0 ppm, pump set at 127'

Sample(s) Collected By: Rich Howell, Roy Elern

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-6-05 1110

Project Site: HW40

Sample ID: IAPMW35-120605-W

Point Name: IAPMW35

Depth to Well Bottom: 106.07 ft. below top of well casing (TOC)

Depth to Water Level: 101.25 ft. below TOC

Depth to Water Level: 101.25 ft below TOC prior to sampling

Method of Purging:  Bladder Pump Bailer       Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # 1441 Refill = 13 Discharge = 12 Throttle = 65 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.26 Liters/Min

Purge Calcs

$109.5' \times 5.3 \text{ ml/ft}$   
 $556.5 + 130 \text{ ml} =$   
 $686.5 \text{ ml}$   
 rounded to 1.02

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1043	1048	1053	1058							11
PH	8.13	8.13	8.11	8.11						+/- 0.2	8.11
Temperature (°C)	20.7	21.5	21.6	21.6						+/- 2.0 °C	21.6
Specific Conductance (µmhos/cm)	1560	1550	1550	1560						+/- 3%	1560
Turbidity (NTU)	42	42	42	42						+/- 10%	42
Dissolved Oxygen (mg/L)	7.2	7.15	7.15	7.15						+/- 0.2	7.15
Water Level	101.25	101.25	101.25	101.25							101.25
Each Volume Purged (L)	1.0	1.0	1.0	1.0							-
Total Liters Purged	1.0	2.0	3.0	4.0							4.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PID = 0.0 ppm, pump set at 105'

Sample(s) Collected By: Nick Howell, Ray Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collect of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-6-05, 1355 Project Site: HWAD

Sample ID: IAPmw36-120605-W

Point Name: IAPmw36

Depth to Well Bottom: 193.96 ft. below top of well casing (TOC)

Depth to Water Level: 135.70 ft. below TOC

Depth to Water Level: 176.04 ft below TOC prior to sampling

Method of Purging:  Bladder Pump Bailer  Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 904 Refill = 14 Discharge = 21 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.28 Liters/Min

Purge Calcs

191 x 5.3 ml/ft  
1012.3 ml + 130 ml =  
1142.3 ml  
rounded to 1.5 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	1329	1334	1339	1344			1344
PH	8.77	8.78	8.76	8.77		+/- 0.2	8.77
Temperature (°C)	22.1	22.2	22.4	22.4		+/- 2.0°C	22.4
Specific Conductance (µmhos/cm)	1450	1460	1450	1450		+/- 3%	1450
Turbidity (NTU)	2	2	2	2		+/- 10%	2
Dissolved Oxygen (mg/L)	1.85	1.70	1.60	1.55		+/- 0.2	1.55
Water Level	135.98	136.02	136.07	136.04			136.04
Each Volume Purged (L)	1.5	900	900	900			-
Total Liters Purged	1.5	2.4	3.3	4.2			4.2

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PID = 0.0 ppm, pump set at 191'

Sample(s) Collected By: Rich Howell, Roy Elean

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

*Equipment rinse water taken after this well (IAPmw36-120605-WEA)*

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-8-05 0810 Project Site: HWA0

Sample ID: IAPMW37-120805-W

Point Name: IAPMW37

Depth to Well Bottom: 140.9 ft. below top of well casing (TOC)

Depth to Water Level: 134.58 ft. below TOC

Depth to Water Level: 134.68 ft below TOC prior to sampling

Method of Purging:  Bladder Pump Bailer  Submersible Pump

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.0 Liters

Control Box Settings: Box # rear Refill = 12 Discharge = 15 Throttle = 65 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.25 Liters/Min

Purge Calcs

140' X 5.3 ml/ft =  
742 ml  
742 + 130 ml =  
872 ml  
rounded to 1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading						Stabilization Criteria	Final	
Time	0733	0738	0743	0748	0753			0	
PH	8.64	8.64	8.64	8.65	8.64		+/- 0.2	8.64	
Temperature (°C)	19.9	21.05	21.1	21.1	21.1		+/- 2.0 °C	21.1	
Specific Conductance (µmhos/cm)	1550	1520	1540	1540	1540		+/- 3%	1540	
Turbidity (NTU)	2	2	2	2	2		+/- 10%	2	
Dissolved Oxygen (mg/L)	6.2	5.8	5.7	5.65	5.65		+/- 0.2	5.65	
Water Level	134.66	134.68	134.68	134.68	134.68			134.68	
Each Volume Purged (L)	1.0	1.0	1.0	1.0	1.0			-	
Total Liters Purged	1.0	2.0	3.0	4.0	5.0			5.0	

Duplicate Sample Collected?  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PI0 = 0.0 ppm, pump set at 140'

Sample(s) Collected By: Rich Howell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collec of parameters.  
- water quality meter calibrated at 0630 on 12-8-05

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/12/09 12:30

Project Site: H/LAD

Sample ID: IRPMW374-121205-W

Point Name: IRPMW374

Depth to Well Bottom: 157.15 ft. below top of well casing (TOC)

Depth to Water Level: 129.66 ft. below TOC *after sampling*

Depth to Water Level: 129.01 ft below TOC prior to sampling

Method of Purging:  Bladder Pump  Submersible Pump  
 Bailer

Minimum Purge Volume: Two-inch well 1 Liters

Four-inch well \_\_\_\_\_ Liters

Control Box Settings: Box # 05135 Refill = 20 Discharge = 5 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.12 Liters/Min

Purge Calcs

$$155 \times 5.3 \text{ ml/ft} + 130 \text{ ml}$$


---

1000

$$= 0.95$$

1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING

Measure in order listed	Initial reading						Stabilization Criteria	Final
Time	11:35	11:40	11:45	11:50	11:55			11:55
PH	8.36	8.42	8.42	8.44	8.43	+/- 0.2		8.43
Temperature (°C)	16.26	16.47	15.74	15.59	15.59	+/- 2.0 °C		15.99
Specific Conductance (µmhos/cm)	1.2	1.31	1.31	1.31	1.30	+/- 3%		1.32 1300
Turbidity (NTU)	0	0	0	0	0	+/- 10%		0
Dissolved Oxygen (mg/L)	5.54	4.43	4.17	4.02	3.99	+/- 0.2		3.99
Water Level	129.66	129.0	129.6	129.6	129.6			129.6
Each Volume Purged (L)	1	.5	.5	.5	.5			2.5
Total Liters Purged	1	1.5	1.8	2.1	2.4			2.4

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear odorless

Comments: Set pump to 145 S<sup>2</sup> RID = 0.0 ppm

Sample(s) Collected By: D Kennedy & A Miel

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12.8.05 1100

Project Site: HWA00

Sample ID: [RPMW]8-120805-V

Point Name: [RPMW]8

Depth to Well Bottom: 238.7 ft. below top of well casing (TOC)

Depth to Water Level: 185.52 ft. below TOC

Depth to Water Level: 185.55 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 1cat Refill = 16 Discharge = 22 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

Purge Calcs

235' x 5.3 ml/ft  
1245.5 ml/ft  
1245.5 + 130 ml  
1375.5  
rounded to 1.5 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	1029	1034	1039	1044			11
PH	7.95	7.94	7.95	7.95		+/- 0.2	7.7
Temperature (°C)	17.7	17.5	17.55	17.6		+/- 2.0 °C	17.6
Specific Conductance (µmhos/cm)	1800	1790	1800	1800		+/- 3%	1800
Turbidity (NTU)	4.2	4.1	4.2	4.2		+/- 10%	4.2
Dissolved Oxygen (mg/L)	5.3	5.2	5.15	5.10		+/- 0.2	5.10
Water Level	185.58	185.55	185.55	185.55			185.55
Each Volume Purged (L)	1.5	.500	.500	.500			-
Total Liters Purged	1.5	2.0	2.5	3.0			3.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments P10 = 0.0, Pump sat at 235'

Sample(s) Collected By: Nick Howell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-8-05 0925 Project Site: HWA0

Sample ID: IAPM039-120805-W

Point Name: IAPM039

Depth to Well Bottom: 191.74 ft. below top of well casing (TOC)

Depth to Water Level: 185.12 ft. below TOC

Depth to Water Level: 185.15 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 111 Refill = 15 Discharge = 18 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.26 Liters/Min

Purge Calc

190' x 5.3 ml/ft =  
1007 ml  
1007 x 170 ml =  
1137 ml  
1007 x 1.5 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
		0907	0912	0917			
Time	0907	0912	0917				0917
PH	8.27	8.24	8.25	8.24		+/- 0.2	8.24
Temperature (°C)	18.75	19.1	19.3	19.35		+/- 2.0 °C	19.35
Specific Conductance (µmhos/cm)	1810	1810	1830	1830		+/- 3%	1830
Turbidity (NTU)	10.7	6.6	4.6	4.1		+/- 10%	4.1
Dissolved Oxygen (mg/L)	6.87	6.8	6.75	6.75		+/- 0.2	6.75
Water Level	185.15	185.15	185.15	185.15			185.15
Each Volume Purged (L)	1.5	.800	.800	.800			-
Total Liters Purged	1.5	2.3	3.1	3.9			3.9

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear colorless, odorless

Comments: PID = 00 ppm, Pump set at 190'

Sample(s) Collected By: Rich Howell, Roy Green

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05 / 0955 Project Site: HWAD

Sample ID: IRPMW40A-120905-W

Point Name: IRPMW40

Depth to Well Bottom: 158.4 ft. below top of well casing (TOC)

Depth to Water Level: 118.485 ft. below TOC

Depth to Water Level: 118.47 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 7 Discharge = 12 Throttle = 95 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

Purge Calcs

Tube length = 163'

$163 \times 5.3 = 863.9 \text{ ml}$

$863.9 + 130 = 993.9$

Rounded to 1L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	0935	0940	0945	0950						0
PH	7.96	7.97	7.97	7.95					+/- 0.2	7.97
Temperature (°C)	16.8	17.1	17.3	17.9					+/- 2.0°C	17.9
Specific Conductance (µmhos/cm)	1400	1390	1390	1390					+/- 3%	1390
Turbidity (NTU)	<2	<2	<2	<2					+/- 10%	<2
Dissolved Oxygen (mg/L)	4.40	3.73	3.60	3.53					+/- 0.2	3.53
Water Level	118.5	118.5	118.5	118.5						118.5
Each Volume Purged (L)	1	0.9	0.9	0.9						0.9
Total Liters Purged	1	1.9	2.8	3.7						3.7

Duplicate Sample Collected? No  Yes (Sample ID of Duplicate) IRPMW40B-120905-W (1010)

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Water is clear, no sediment, no odor.

Comments PID = 0.4 ppm set well to 153.3 ft.

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collt of parameters.

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Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-9-05 / 0800 Project Site: HWAD

Sample ID: IAPMW41-120905-W

Point Name: IAPMW41

Depth to Well Bottom: 124.3 ft. below top of well casing (TOC)

Depth to Water Level: 118.64 ft. below TOC

Depth to Water Level: 118.67 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 10 Throttle = 95 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.12 Liters/Min

**Purge Calcs**

tube length = 170 ft  
 $170 \text{ ft} \times 5.3 \text{ ml/ft} = 683 \text{ ml}$   
 $683 + 130 = 813 \text{ ml}$   
 Rounded to 1L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	0740	0745	0750	0755			0755
PH	8.04	8.04	8.04	8.04		+/- 0.2	8.04
Temperature (°C)	13.0	13.1	12.9	13.0		+/- 2.0 °C	13.0
Specific Conductance (µmhos/cm)	1,370	1,360	1,360	1,360		+/- 3%	1,360
Turbidity (NTU)	<2	<2	<2	<2		+/- 10%	<2
Dissolved Oxygen (mg/L)	6.98	6.80	6.75	6.65		+/- 0.2	6.65
Water Level	118.65	118.65	118.65	118.65			118.65
Each Volume Purged (L)	1	0.6	0.6	0.6			0.6
Total Liters Purged	1	1.6	2.2	2.8			2.8

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Clear, no odor, no sediment.

Comments PID = 0.0 ppm set pump at 121.2'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

THH

**Tetra Tech EM Inc.**  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 12/14/05 08:05

Project Site: HWAID

Sample ID: IRPMW42-121405-W

Point Name: IRPMW42

Depth to Well Bottom: 111.01 ft. below top of well casing (TOC)

Depth to Water Level: 103.24 ft. below TOC *Altitude change*

Depth to Water Level: 103.26 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

**Purge Calcs**

$115\text{ft} \times 5.3 \text{ ml/ft} = 609.5 \text{ L}$   
 $609.5 \text{ L} + 130 \text{ mL} = 739.5 \text{ L}$   
 $739.5 \text{ L} \div 100\% = 7.4 \text{ L}$

1 L

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 2 Liters

Control Box Settings: Box # 25135 Refill = 11 Discharge = 7 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	07:20	07:25	07:30	07:35	07:40	07:45	07:50	07:55	08:00		
PH	8.01	8.01	8.01	7.88	7.91	7.97	8.00	7.99	7.97	+/- 0.2	7.97
Temperature (°C)	22.23	21.87	21.94	14.14	14.9	14.34	22.15	21.85	22.23	+/- 2.0°C	22.23
Specific Conductance (µmhos/cm)	453	462	464	453	451	450	454	453	455	+/- 3%	455
Turbidity (NTU)	0	0	0	0	0	0	0	0	0	+/- 10%	0
Dissolved Oxygen (mg/L)	5.46	6.90	4.42	5.59	4.51	6.60	4.25	4.52	5.24	+/- 0.2	5.24
Water Level	103.24	103.24	103.24	103.24	103.24	103.24	103.24	103.24	103.24		103.24
Each Volume Purged (L)	1	1.3	.5	.5	.5	.7	.8	.7	.7		
Total Liters Purged	1	2.3	2.8	3.3	3.8	4.5	5.3	6.0	6.7		6.7

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): NO ODORS, COLORLESS

Comments: PID = 0.0 ppm, set pump to 106.7'

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Calibrated U-22 + PID PRIOR TO THIS WELL.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/1/05 10945

Project Site: HWAD

Sample ID: IRPMW43-121405-W

Point Name: IRPMW43

Depth to Well Bottom: 107.6 ft. below top of well casing (TOC)

Depth to Water Level: 98.32 ft. below TOC *At 40 sample*

Depth to Water Level: 98.83 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 7 Liters

Control Box Settings: Box # 05135 Refill = 11 Discharge = 7 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

**Purge Calcs**

111 ft. x 5.3 ml/ft = 592.1 ml  
 592.1 ml + 130 ml = 722.1 ml  
 722.1 ml ÷ 3.5 = 206.3 L  
 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading						Stabilization Criteria	Final	
Time	0920	0925	0930	0935	0940	0945			
PH	7.98	8.05	8.21	8.24	8.15		+/- 0.2	8.25	
Temperature (°C)	21.46	22.82	21.44	22.14	21.87		+/- 2.0 °C	21.87	
Specific Conductance (µmhos/cm)	950	940	945	955	940		+/- 3%	940 <del>940</del>	
Turbidity (NTU)	0	0	0	0	0		+/- 10%	0	
Dissolved Oxygen (mg/L)	6.08	6.69	7.13	7.11	7.21		+/- 0.2	7.21	
Water Level	98.33	98.35	98.35	98.83	98.33			98.33	
Each Volume Purged (L)	1	.9	.7	.7	.7				
Total Liters Purged	1	1.9	2.6	3.3	4.0			4.0	

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): ODORLESS, COLORLESS

Comments: PID = 0.0 ppm, SET PUMP TO 102.5'

Sample(s) Collected By: DK + AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/13/05 1358

Project Site: HLAD

Sample ID: IRPMW44-121305-W

Point Name: IRPMW44

Depth to Well Bottom: 102.88 ft. below top of well casing (TOC)

Depth to Water Level: 98.58 ft. below TOC After sample

Depth to Water Level: 98.59 ft. below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Purge Calcs

102 Ft. x 5.3 ml/ft. = 567.1 mL  
567.1 mL + 130.0 mL = 697.1 mL  
697.1 ÷ 10.0 = 70  
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Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 L Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 10 Throttle = 80 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.17 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1223	1228	1233	1238	1243	1248	1253	1258	1303		
PH	8.03	7.70	7.70	7.71	7.63	7.69	7.69	7.70	7.63	+/- 0.2	7.60
Temperature (°C)	20.36	21.14	20.37	20.83	20.62	20.77	21.06	21.04	20.74	+/- 2.0 °C	20.74
Specific Conductance (µmhos/cm)	1.70	1.72	1.70	1.70	1.74	1.76	1.75	1.76	1.75	+/- 3%	<del>1.75</del> 1.75
Turbidity (NTU)	<del>5.48</del>	0	0	0	0	2.3	18.6	29.7	83.7	+/- 10%	83.7
Dissolved Oxygen (mg/L)	4.00	3.92	3.97	2.18	3.73	2.78	2.38	2.12	2.79	+/- 0.2	2.79
Water Level	98.58	98.58	98.58	98.58	98.58	98.58	98.58	98.58	98.58		98.58
Each Volume Purged (L)	1	.7	.7	.7	.7	.7	.7	.7	.7		
Total Liters Purged	1	1.7	2.4	3.1	3.8	4.5	5.2	5.9	6.6		6.6

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): \_\_\_\_\_

Comments Set pump to 100.4' PID = 0.0 gpm

Sample(s) Collected By: DK & AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

\* - rinse collected after this well # IRPMW44-121305-WER  
@ 1340

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-09-05 / 1210

Project Site: HWAD

Sample ID: IRPMW45-120905-W

Point Name: IRPMW45

Depth to Well Bottom: 116.80 ft. below top of well casing (TOC)

Depth to Water Level: 111.54 ft. below TOC after sampling

Depth to Water Level: 111.60 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05175 Refill = 10 Discharge = 10 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.18 Liters/Min

**Purge Calcs**

113' tubing  
113 x 5.3 ml/ft  
= 538.3 ml  
538.3 + 130  
= 728.9 ml

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading						Stabilization Criteria	Final
Time	1145	1150	1155	1200	1205			1205
PH	7.84	7.82	7.80	7.80	7.79		+/- 0.2	7.79
Temperature (°C)	20.6	20.7	23.4	23.3	22.7		+/- 2.0°C	22.9
Specific Conductance (µmhos/cm)	1,550	1,550	1,570	1,570	1,580		+/- 3%	1,580
Turbidity (NTU)	<2	<2	<2	<2	<2		+/- 10%	<2
Dissolved Oxygen (mg/L)	6.76	6.67	6.42	6.44	6.38		+/- 0.2	6.38
Water Level	111.57	111.57	111.57	111.57	111.57			111.57
Each Volume Purged (L)	1	0.9	0.9	0.9	0.9			0.9
Total Liters Purged	1	1.9	2.8	3.7	4.6			4.6

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): No odor, clear, no sediment

Comments PI=0.0 ppmv, set pump at 113.9 ft 112.3 ft.

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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Note. Pump was set above screen (due to lack of tubing length), but was still set 1 ft

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-9-05, 1345

Project Site: HWAD

Sample ID: IRPMW46-120905-W

Point Name: IRPMW46

Depth to Well Bottom: 116.16 ft. below top of well casing (TOC)

Depth to Water Level: 111.05 ft. below TOC after sampling

Depth to Water Level: 111.08 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 12 Throttle = 85 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calcs

121 ft tubing length  
121 x 5.3 ml/ft  
= 641.3 ml  
641.3 + 130 = 771.3 ml  
Rounded to 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	1323	1328	1333	1338							1
PH	8.27	8.25	8.23	8.21						+/- 0.2	8.21
Temperature (°C)	18.6	19.2	19.7	19.6						+/- 2.0 °C	19.6
Specific Conductance (µmhos/cm)	1,460	1,440	1,440	1,440						+/- 3%	1,440
Turbidity (NTU)	<2	<2	<2	<2						+/- 10%	<2
Dissolved Oxygen (mg/L)	7.27	7.30	7.33	7.35						+/- 0.2	7.35
Water Level	111.06	111.06	111.06	111.06							111.06
Each Volume Purged (L)	1	0.8	0.8	0.8							0.8
Total Liters Purged	1	1.8	2.6	3.4							3.4

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, no odor, no sediment.

Comments: IO = 0.0 ppmv set pump to 113.3 ft

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Note: Equipment onsite collected after this well.

IRPMW46-120905-ER (1420)

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05 / 1525 Project Site: HWAD

Sample ID: IRPMW47-120905-W

Point Name: IRPMW47

Depth to Well Bottom: 116.41 ft. below top of well casing (TOC)

Depth to Water Level: 111.19 ft. below TOC after sampling

Depth to Water Level: 111.20 ft. below TOC prior to sampling

Method of Purging: Bladder Pump  Submersible Pump   
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 10 Throttle = 90 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.12 Liters/Min

Purge Calc

123' tube length  
123 x 5.3 ml/ft  
= 651.9 ml  
651.9 + 130  
= 781.9 ml  
Rounded to 2L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	1505	1510	1515	1520					1520
PH	8.18	8.17	8.17	8.16				+/- 0.2	8.16
Temperature (°C)	15.7	16.2	16.5	17.1				+/- 2.0°C	17.1
Specific Conductance (µmhos/cm)	1,280	1,280	1,270	1,270				+/- 3%	1,270
Turbidity (NTU)	<2	<2	<2	<2				+/- 10%	<2
Dissolved Oxygen (mg/L)	7.51	7.40	7.36	7.31				+/- 0.2	7.31
Water Level	111.19	111.19	111.19	111.19					111.19
Each Volume Purged (L)	1	0.7	0.6	0.6					0.6
Total Liters Purged	1	1.7	2.3	2.9					2.9

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, no odor, no sediment

Comments PID = 0.0 ppm, pump set at 113.6'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

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Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-6-05, 14:25

Project Site: HWAD

Sample ID: IRPMW48-120605-W

Point Name: IRPMW48

Depth to Well Bottom: 122.85 ft. below top of well casing (TOC)

Depth to Water Level: 117.10 ft. below TOC *after sampling*

Depth to Water Level: 117.10 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1 Liters

Control Box Settings: Box # 05135 Refill = 10 Discharge = 9 Throttle = 95 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

Purge Calcs

Tube length = 128'

$128 \times 5.3 = 678.4 \text{ ml}$

$678.4 \text{ ml} + 130 \text{ ml}$

$= 808.4 \text{ ml}$

Rounded to 1 L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING										
Measure in order listed	Initial reading								Stabilization Criteria	Final
Time	1403	1408	1413	1418						14
PH	8.24	8.24	8.24	8.24					+/- 0.2	8.24
Temperature (°C)	20.0	20.6	20.8	21.1					+/- 2.0 °C	21.1
Specific Conductance (µmhos/cm)	1,230	1,240	1,230	1,230					+/- 3%	1,230
Turbidity (NTU)	<2	<2	<2	<2					+/- 10%	<2
Dissolved Oxygen (mg/L)	8.22	8.03	7.94	7.93					+/- 0.2	7.93
Water Level	117.08	117.08	117.08	117.08						117.08
Each Volume Purged (L)	1	0.8	0.8	0.8						0.8
Total Liters Purged	1	1.8	2.6	3.4						3.4

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Water was clear with no odor and no sediment.

Comments: PIE = 0.0 ppm pump set at 119.7'

Sample(s) Collected By: A. McDaniel, L. Izzo

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Equipment rinsate collected after this well was sampled.  
IRPMW48-120605-WER (1505)

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-9-05 0925 Project Site: 14WAD

Sample ID: LAPMW 49 - 120905-W

Point Name: LAPMW 49

Depth to Well Bottom: 238.7 ft. below top of well casing (TOC)

Depth to Water Level: 181.35 ft. below TOC

Depth to Water Level: 181.35 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # rent Refill = 12 Discharge = 18 Throttle = 105 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.22 Liters/Min

**Purge Calcs**

232' x 5.3 ml/ft =  
1229.6 ml  
1229.6 + 130 ml =  
1359.6 ml  
rounded to 1.5 l

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	0856	0901	0906	0911			0911
PH	7.75	7.75	7.75	7.75		+/- 0.2	7.75
Temperature (°C)	16.9	16.9	16.95	16.9		+/- 2.0 °C	16.9
Specific Conductance (µmhos/cm)	1530	1530	1520	1530		+/- 3%	1530
Turbidity (NTU)	7.0	5.0	5.0 <sup>5.0</sup>	4.0		+/- 10%	4.0
Dissolved Oxygen (mg/L)	5.1	5.05	5.05	5.00		+/- 0.2	5.0
Water Level	181.37	181.38	181.35	181.35			181.35
Each Volume Purged (L)	1.5	.600	.600	.600			-
Total Liters Purged	1.5	2.1	2.7	3.3			3.3

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments PID = 0.0 ppm, Pump set at 232'

Sample(s) Collected By: Rich Howard, Roy Green

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-9-05 0810

Project Site: HWAD

Sample ID: IAPMW50-120905-W

Point Name: IAPMW50

Depth to Well Bottom: 186.26 ft. below top of well casing (TOC)

Depth to Water Level: 181.08 ft. below TOC

Depth to Water Level: 181.08 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # reat Refill = 16 Discharge = 15 Throttle = 95 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.24 Liters/Min

Purge Calcs

$185' \times 5.3 \text{ ml/ft} =$   
 $980.5 \text{ ml}$   
 $980.5 + 130 \text{ ml} =$   
 $1110.5$   
*rounded to 1.5 L*

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading									Stabilization Criteria	Final
Time	0743	0748	0753	0758							
PH	7.91	7.89	7.89	7.88						+/- 0.2	7.88
Temperature (°C)	18.1	18.15	18.15	18.15						+/- 2.0 °C	18.15
Specific Conductance (µmhos/cm)	1570	1580	1580	1580						+/- 3%	1580
Turbidity (NTU)	<2	<2	<2	<2						+/- 10%	<2
Dissolved Oxygen (mg/L)	7.3	7.3	7.3	7.25						+/- 0.2	7.25
Water Level	181.08	181.08	181.08	181.08							181.08
Each Volume Purged (L)	1.5	.700	.700	.700							-
Total Liters Purged	1.5	2.2	2.9	3.6							3.6

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): clear, colorless, odorless

Comments: PID: 0.0 ppm, Pump set at 185'

Sample(s) Collected By: Rich Howell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

*X water quality meter calibrated at 0630.*

*X PID calibrated at 0630.*

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-7-05 1100

Project Site: HWAD

Sample ID: LAPAW50A-120905-W

Point Name: IAPAW50A

Depth to Well Bottom: 194.45 ft. below top of well casing (TOC)

Depth to Water Level: 186.2 ft. below TOC

Depth to Water Level: 186.2 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well 2.0 Liters

Four-inch well 2.0 Liters

Purge Calcs

191' x 5.1 ml/ft =  
1012.3 ml  
1012.3 ml + 130 ml =  
1142.3  
-rounded to 1.5 l  
-purge 2 l since pump sits  
up bottom

Control Box Settings: Box # 1 Refill = 16 Discharge = 12 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.36 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading							Stabilization Criteria	Final
Time	1015	1020	1025	1030	1035	1040			1040
PH	7.38	7.38	7.38	7.38	7.37	7.37	+/- 0.2		7.37
Temperature (°C)	19.2	19.25	19.25	19.25	19.25	19.25	+/- 2.0 °C		19.25
Specific Conductance (µmhos/cm)	3070	3070	3070	3090	3090	3090	+/- 3%		3090
Turbidity (NTU)	260	180	150	120	110	110	+/- 10%		110
Dissolved Oxygen (mg/L)	6.6	6.65	6.65	6.70	6.70	6.75	+/- 0.2		6.75
Water Level	186.2	186.2	186.2	186.2	186.2	186.2			186.2
Each Volume Purged (L)	2.5	1.3	1.3	1.3	1.3	1.3			-
Total Liters Purged	2.5	3.8	5.1	6.4	7.7	9.0			9.0

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Light brownish color, odor of chemical/sulphur

Comments P10 = 0.6 ppm, pump set at 191'

Sample(s) Collected By: Rich Howell, Amy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
**MONITORING WELL SAMPLING FORM**

Date/Time of Sample Collection: 7/19/05 1525

Project Site: HLWAD

Sample ID: IRPMW50B-121505-w

Point Name: IRPMW50B

**Purge Calcs**

$200 \text{ ft.} \times 5.3 \text{ ml/ft.} = 1060 \text{ mL}$

$1060 \text{ mL} + 130 \text{ mL} = 1190 \text{ mL}$

$1190 \text{ mL} \div 1000 \text{ mL/L} = 1.19$

1.5 L

Depth to Well Bottom: 197.55 ft. below top of well casing (TOC)

Depth to Water Level: 176.27 ft. below TOC After sample

Depth to Water Level: 176.81 ft below TOC prior to sampling

Method of Purging: Bladder Pump Bailer Submersible Pump

Minimum Purge Volume: Two-inch well 1.5 Liters

Four-inch well \_\_\_\_\_ Liters

Control Box Settings: Box # 05116 Refill = 15 Discharge = 10 Throttle = 110 <sup>psi</sup> psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.23 Liters/Min

PHYSIO-CHEMICAL PARAMETERS DURING PURGING											
Measure in order listed	Initial reading	0 5 0 5								Stabilization Criteria	Final
Time	1440	1445	1450	1455	1500	1505	1510	1515	1520		
PH	7.90	8.06	8.01	7.90	7.95	7.93	7.93	7.93	7.92	+/- 0.2	7.83
Temperature (°C)	16.71	16.22	17.31	16.85	17.61	16.83	17.60	17.58	18.30	+/- 2.0°C	18.30
Specific Conductance (µmhos/cm)	1.51	1.51	1.51	1.51	1.52	1.51	1.51	1.51	1.52	+/- 3%	1.52
Turbidity (NTU)	616.0	494	347.0	287.0	281.0	417.0	317.0	268.0	215.0	+/- 10%	215.0
Dissolved Oxygen (mg/L)	3.22	2.67	2.70	3.14	1.91	3.58	3.91	4.16	4.32	+/- 0.2	4.32
Water Level	176.73	176.33	176.33	176.33	176.33	176.33	176.33	176.33	176.33		176.33
Each Volume Purged (L)	1.5	1	1	1	1	1	1	1	1		
Total Liters Purged	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5		9.5

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Brownish color - sediment - no odor

Comments: PID = 0.0 ppm pump set to 150'

Sample(s) Collected By: DK & AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12-9-05, 1430 Project Site: HWAAD

Sample ID: IAPMW51A-120905-W

Point Name: IAPMW51

Depth to Well Bottom: 249.0 ft. below top of well casing (TOC)

Depth to Water Level: 202.40 ft. below TOC

Depth to Water Level: 202.36 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Baller

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 1245 Refill = 15 Discharge = 18 Throttle = 100 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.2 Liters/Min

2) Purge Calcs  
 $249' \times 5.3 \text{ ml/ft} =$   
 $1181.9$   
 $1181.9 + 130 \text{ ml} =$   
 $1311.9 \text{ ml}$   
 rounded to 1.5 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading					Stabilization Criteria	Final
Time	1407	1412	1417	1422			1422
PH	7.83	7.87	7.87	7.82		+/- 0.2	7.82
Temperature (°C)	15.15	15.3	14.8	14.8		+/- 2.0 °C	14.8
Specific Conductance (µmhos/cm)	1500	1510	1520	1520		+/- 3%	1520
Turbidity (NTU)	38	15	15	15.5		+/- 10%	15.5
Dissolved Oxygen (mg/L)	5.6	5.2	5.0	5.6		+/- 0.2	5.6
Water Level	202.36	202.37	202.36	202.36			202.36
Each Volume Purged (L)	1.5	1.500	1.500	1.500			-
Total Liters Purged	1.5	2.0	2.5	3.0			3.0

Duplicate Sample Collected? No  Yes (Sample ID of Duplicate) IAPMW51B-120905-W (1440)

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): Slight haze, slight vol odor

Comments PID = 0.0 ppm, Pump set at 243'

Sample(s) Collected By: Rich Howell, Roy Glenn

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

\* Pump not set in series - too deep.  
 \* equipment inserts collected after this well  
IAPMW51-120905-W6A (1530)

Tetra Tech EM Inc.  
MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/16/05 1305

Project Site: H/WAD

Sample ID: IRPMWS2-121605-LW

Point Name: IRPMWS2

Depth to Well Bottom: 209.0 ft. below top of well casing (TOC)

Depth to Water Level: 200.18 ft. below TOC After Sample

Depth to Water Level: 202.22 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
Bailer

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # 05116 Refill = 30 Discharge = 14 Throttle = 115 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.16 Liters/Min

**Purge Calcs**

$205 \text{ ft} \times 5.3 \text{ ml/ft} = 1086.5 \text{ ml}$   
 $1086.5 \text{ ml} + 130 \text{ ml} = 1216.5 \text{ ml}$   
 $1216.5 \text{ ml} \div 1000 \text{ ml/L} = 1.2165 \text{ L}$

1.5L

PHYSIO-CHEMICAL PARAMETERS DURING PURGING									
Measure in order listed	Initial reading					Stabilization Criteria	Final		
		1	2	3	4				
Time	1245	1250	1255	1300					
PH	8.25	8.17	8.24	8.29		+/- 0.2	8.29		
Temperature (°C)	12.26	11.97	12.3	11.90		+/- 2.0 °C	11.90		
Specific Conductance (µmhos/cm)	146	147	146	147		+/- 3%	147 1470		
Turbidity (NTU)	3.1	39.3	42.0	40.3		+/- 10%	40.3		
Dissolved Oxygen (mg/L)	0.05	0	0	0		+/- 0.2	0		
Water Level	202.22	202.2	202.2	202.2			202.2		
Each Volume Purged (L)	1.5	.3	.3	.3					
Total Liters Purged	1.5	1.3	2.1	2.4			24		

Duplicate Sample Collected?  No  Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No  Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): None

Comments FID = 0.0ppm SET PUMP TO 205.3'

Sample(s) Collected By: DK 4 AM

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

Rinse after this well

MONITORING WELL SAMPLING FORM

Date/Time of Sample Collection: 12/12/05 0940 Project Site: HWAD

Sample ID: IRPMWS6 - 12/12/05 - W

Point Name: IRPMWS6

Depth to Well Bottom: 146.39 <sup>AK 182.1</sup> ft. below top of well casing (TOC)

Depth to Water Level: 146.39 ft. below TOC

Depth to Water Level: 146.39 ft below TOC prior to sampling

Method of Purging: Bladder Pump Submersible Pump  
 Bladder Pump  Submersible Pump  
 Batter

Minimum Purge Volume: Two-inch well \_\_\_\_\_ Liters

Four-inch well 1.5 Liters

Control Box Settings: Box # \_\_\_\_\_ Refill = 1.0 Discharge = 10 Throttle = 95 psi

Purge Rate goal = 0.5 Liters/Min. Actual purge rate 0.72 Liters/Min

**Purge Calcs**

$170 \text{ ft.} \times 5.3 \text{ ml/ft} = 901 \text{ mL}$

$901 \text{ mL} + 130 \text{ mL} = 1031 \text{ mL}$

$1031 \text{ mL} \div 1000 \text{ mL} = 1.031 \text{ L}$

1.5 L

**PHYSIO-CHEMICAL PARAMETERS DURING PURGING**

Measure in order listed	Initial reading	Calibrated HANNA sensor to this well								Stabilization Criteria	Final
		0915	0920	0925	0930	0935	0940	0945	0950		
Time	0:00	0915	0920	0925	0930	0935	0940	0945	0950		0940
PH	7.11	8.06	8.09	8.12	8.13	8.15	8.16	8.17	8.17	+/- 0.2	8.17
Temperature (°C)	19.3	20.6	20.6	21.3	20.3	21.4	21.5	21.4	21.6	+/- 2.0 °C	21.6
Specific Conductance (µmhos/cm)	1.86	1.81	1.80	1.79	1.78	1.75	1.73	1.69	1.67	+/- 3%	1.67
Turbidity (NTU)	0	5.5	18.3	16.9	26.9	29.0	68.4	66.7	81.5	+/- 10%	81.5
Dissolved Oxygen (mg/L)	5.66	3.66	6.44	4.72	4.52	4.97	4.64	4.30	3.73	+/- 0.2	3.73
Water Level	146.32	146.82	146.82	146.82	146.82	146.82	146.82	146.82	146.82		146.82
Each Volume Purged (L)	1.5	1.3	1.3	1.2	1.3	1.1	1.3	1.5	1.6		
Total Liters Purged	1.5	2.7	4.1	5.3	7.1	8.2	9.5	11	12.6		12.6

Duplicate Sample Collected?  No Yes (Sample ID of Duplicate) \_\_\_\_\_

MS/MSD Sample Collected?  No Yes \_\_\_\_\_

Sample Remarks (odors, colors, sediment): yellow color

Comments Set pump to 156 due to tubing length, PID = 0.0 ppm

Sample(s) Collected By: D. Kennedy A. McDaniel

Well Volume purge Calc: Length of tubing X 5.3 (ml/ft) + 130 (bladder volume) = Total required purge (liters) before collection of parameters.

5 10

**APPENDIX D**

**PROJECT LABORATORY DATA AND  
CHAIN-OF-CUSTODY RECORDS (2005)**

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACID LYSIS

Matrix : WATER

Page: 1  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW01-112905-W (UG/L)	IRPMW02-112905-W (UG/L)	IRPMW04-112905-W (UG/L)	IRPMW05-112905-W (UG/L)	IRPMW05-112905-WER (UG/L)
Sample Location					
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Date Sampled / SDG Number	11/29/05 WAB01				
Date Extracted / Analyzed	12/08/05 12/08/05	12/08/05 12/08/05	12/08/05 12/08/05	12/08/05 12/08/05	12/08/05 12/08/05
Analyte	Result Val Com				
PICRIC ACID	0.9 U				

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

AMMONIA AS NITROGEN ANALYSIS

Matrix : WATER

Page: 2  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW01-112905-W (MG/L)			IRPMW02-112905-W (MG/L)			IRPMW04-112905-W (MG/L)			IRPMW05-112905-W (MG/L)			IRPMW05-112905-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/29/05 WAB01			11/29/05 WAB01											
Date Extracted / Analyzed	12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05		
Analyte	Result	Val	Com	Result	Val	Com									
AMMONIUM AS N	0.20	U	b	0.15	U	b	0.19	U	b	0.13	U	b	0.12	J	g

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

MAJOR AN. ANALYSIS

Matrix : WATER

Page: 3  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW01-112905-W (MG/L)			IRPMW02-112905-W (MG/L)			IRPMW04-112905-W (MG/L)			IRPMW05-112905-W (MG/L)			IRPMW05-112905-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/29/05 WAB01			11/29/05 WAB01											
Analyte	Result	Val	Com	Result	Val	Com									
NITRATE AS N	2.6			59.7			0.46			1.0			0.026	J	g
NITRITE AS N	0.2	U		1.3	U		0.2	U		0.2	U		0.05	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

EXPLOSIVES ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	IRPMW01-112905-W (UG/L)			IRPMW02-112905-W (UG/L)			IRPMW04-112905-W (UG/L)			IRPMW05-112905-W (UG/L)			IRPMW05-112905-WER (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/29/05 WAB01			11/29/05 WAB01											
Date Extracted / Analyzed	12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com									
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		9.8			1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		2.4			1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		3.2			0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
3-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		15.6			0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
HMX	1	U		1	U		1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U		1	U		1	U	
RDX	0.25	U		0.25	U										
TETRYL	1	U		1	U		1	U		1	U		1	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

Page: 5  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW01-112905-W (MG/L)			IRPMW02-112905-W (MG/L)			IRPMW04-112905-W (MG/L)			IRPMW05-112905-W (MG/L)			IRPMW05-112905-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/29/05 WAB01			11/29/05 WAB01											
Date Extracted / Analyzed	12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05		
Analyte	Result	Val	Com	Result	Val	Com									
TOTAL KJELDAHL NITROGEN	0.39	U	b	0.36	U	b	0.38	U	b	0.29	U	b	0.34		

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	IRPMW06-113005-W (UG/L)			IRPMW07-113005-WER (UG/L)			IRPMW09-113005-W (UG/L)			IRPMW10-113005-W (UG/L)			USGS10341MW23113005W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02		
Date Extracted / Analyzed	12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID		0.9 U			0.9 U			0.9 U			0.9 U			0.9 U	

TtEMI Sample ID / Units	USGS10341MW25113005W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02		
Date Extracted / Analyzed	12/08/05 12/08/05		
Analyte	Result	Val	Com
PICRIC ACID		0.9 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW06-113005-W (MG/L)			IRPMW07-113005-WER (MG/L)			IRPMW09-113005-W (MG/L)			IRPMW10-113005-W (MG/L)			USGS10341MW23113005W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02		
Date Extracted / Analyzed	12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05			12/02/05 12/02/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.11	U	b	0.48			0.098	U	b	0.068	U	b	0.11	U	b

TtEMI Sample ID / Units	USGS10341MW25113005W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02		
Date Extracted / Analyzed	12/02/05 12/02/05		
Analyte	Result	Val	Com
AMMONIUM AS N	0.37	U	b

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

MAJOR ANIONS ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW06-113005-W (MG/L)	IRPMW07-113005-WER (MG/L)	IRPMW09-113005-W (MG/L)	IRPMW10-113005-W (MG/L)	USGS10341MW23113005W (MG/L)							
Sample Location												
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00							
Date Sampled / SDG Number	11/30/05 WAB02	11/30/05 WAB02	11/30/05 WAB02	11/30/05 WAB02	11/30/05 WAB02							
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.20	J	g	0.029	J	g	4.0			0.14	U	b
NITRITE AS N	0.25	U		0.05	U		0.2	U		0.25	U	

TtEMI Sample ID / Units	USGS10341MW25113005W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02		
Analyte	Result	Val	Com
NITRATE AS N	0.13	U	b
NITRITE AS N	0.2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW06-113005-W (UG/L)			IRPMW07-113005-WER (UG/L)			IRPMW09-113005-W (UG/L)			IRPMW10-113005-W (UG/L)			USGS10341MW23113005W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02			11/30/05 WAB02		
Date Extracted / Analyzed	12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	USGS10341MW25113005W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02		
Date Extracted / Analyzed	12/06/05 12/07/05		
Analyte	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U	
1,3-DINITROBENZENE	1	U	
2,4,6-TRINITROTOLUENE	1	U	
2,4-DINITROTOLUENE	1	U	
2,6-DINITROTOLUENE	1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U	
2-NITROTOLUENE	1	U	
3-NITROTOLUENE	1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U	
4-NITROTOLUENE	1	U	
HMX	1	U	
NITROBENZENE	1	U	
RDX	0.25	U	
TETRYL	1	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

## TOTAL KJELDAHL NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW06-113005-W (MG/L)	IRPMW07-113005-WER (MG/L)	IRPMW09-113005-W (MG/L)	IRPMW10-113005-W (MG/L)	USGS10341MW23113005W (MG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	11/30/05 WAB02	11/30/05 WAB02	11/30/05 WAB02	11/30/05 WAB02	11/30/05 WAB02										
Date Extracted / Analyzed	12/02/05 12/02/05	12/02/05 12/02/05	12/02/05 12/02/05	12/02/05 12/02/05	12/02/05 12/02/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.34	U	b	0.73			0.29	U	b	0.29	U	b	0.30	U	b

TtEMI Sample ID / Units	USGS10341MW25113005W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB02		
Date Extracted / Analyzed	12/02/05 12/02/05		
Analyte	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.49	U	b

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACIDITY ANALYSIS  
 Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW16-120205-WER (UG/L)			IRPMW17-120205-W (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03		
Date Extracted / Analyzed	12/08/05 12/08/05			12/08/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

AMMONIA AS . GEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW16-120205-WER (MG/L)			IRPMW17-120205-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03		
Date Extracted / Analyzed	12/06/05 12/06/05			12/06/05 12/06/05		
Analyte	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.13	J	g	0.3	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

MAJOR ANIONS ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW16-120205-WER (MG/L)			IRPMW17-120205-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03		
Analyte	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.027	J	g	8.9		
NITRITE AS N	0.05	U		0.2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVE ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW16-120205-WER (UG/L)			IRPMW17-120205-W (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03		
Date Extracted / Analyzed	12/06/05 12/07/05			12/06/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U	
3-NITROTOLUENE		1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U	
HMX		1 U			1 U	
NITROBENZENE		1 U			1 U	
RDX	0.25	U		0.25	U	
TETRYL		1 U			1 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	IRPMW16-120205-WER (MG/L)			IRPMW17-120205-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03		
Date Extracted / Analyzed	12/06/05 12/06/05			12/06/05 12/06/05		
Analyte	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.31			0.23	U	b

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	IRPMW07-120205-W (UG/L)			IRPMW08A-120205-W (UG/L)			IRPMW15-120205-W (UG/L)			IRPMW16-120205-WER (UG/L)			IRPMW17-120205-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03			12/02/05 WAB03			12/02/05 WAB03			12/02/05 WAB03		
Date Analyzed	12/07/05			12/07/05			12/07/05			12/07/05			12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW07-120205-W (UG/L)			IRPMW08A-120205-W (UG/L)			IRPMW15-120205-W (UG/L)			IRPMW16-120205-WER (UG/L)			IRPMW17-120205-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03			12/02/05 WAB03			12/02/05 WAB03			12/02/05 WAB03			12/02/05 WAB03		
Date Analyzed	12/07/05			12/07/05			12/07/05			12/07/05			12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		0.6	J	g	2	U		1	J	g
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		0.5	J	g
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

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- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

VOA 8260 ANALYSIS

Matrix : WATER

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TEMI Sample ID / Units	TB120205 (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03		
Date Analyzed	12/07/05		
Analyte	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U	
1,1,1-TRICHLOROETHANE	2	U	
1,1,2,2-TETRACHLOROETHANE	2	U	
1,1,2-TRICHLOROETHANE	2	U	
1,1-DICHLOROETHANE	2	U	
1,1-DICHLOROETHENE	2	U	
1,1-DICHLOROPROPENE	2	U	
1,2,3-TRICHLOROBENZENE	2	U	
1,2,3-TRICHLOROPROPANE	2	U	
1,2,4-TRICHLOROBENZENE	2	U	
1,2,4-TRIMETHYLBENZENE	2	U	
1,2-DIBROMOETHANE (EDB)	2	U	
1,2-DICHLOROBENZENE	2	U	
1,2-DICHLOROETHANE	2	U	
1,2-DICHLOROPROPANE	2	U	
1,3,5-TRIMETHYLBENZENE	2	U	
1,3-DICHLOROBENZENE	2	U	
1,3-DICHLOROPROPANE	2	U	
1,4-DICHLOROBENZENE	2	U	
2,2-DICHLOROPROPANE	2	U	
2-CHLOROTOLUENE	2	U	
4-CHLOROTOLUENE	2	U	
4-ISOPROPYLTOLUENE	2	U	
BENZENE	1	U	
BROMOBENZENE	2	U	
BROMOCHLOROMETHANE	2	U	
BROMODICHLOROMETHANE	2	U	
BROMOFORM	2	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	2	U	
CHLOROBENZENE	2	U	
CHLOROETHANE	2	U	
CHLOROFORM	2	U	

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 f - Calibration problems  
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 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
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 y - Resembles a fuel pattern but does not match the standard  
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

VOA 8260 ANALYSIS

Matrix : WATER

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 Date: 05/03/0

TtEMI Sample ID / Units	TB120205 (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB03		
Date Analyzed	12/07/05		
Analyte	Result	Val	Com
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	2	U	
CIS-1,3-DICHLOROPROPENE	2	U	
DIBROMOCHLOROMETHANE	2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U	
DIBROMOMETHANE	2	U	
DICHLORODIFLUOROMETHANE	2	U	
DICHLOROMETHANE	2	U	
ETHYLBENZENE	2	U	
HEXACHLOROBUTADIENE	2	U	
ISOPROPYLBENZENE	2	U	
M&P-XYLENES	2	U	
METHYL TERTIARY BUTYL ETHER	2	U	
N-BUTYLBENZENE	2	U	
N-PROPYLBENZENE	2	U	
NAPHTHALENE	2	U	
O-XYLENE	2	U	
SEC-BUTYLBENZENE	2	U	
STYRENE	2	U	
TERT-BUTYLBENZENE	2	U	
TETRACHLOROETHENE (PCE)	2	U	
TOLUENE	2	U	
TRANS-1,2-DICHLOROETHENE	2	U	
TRANS-1,3-DICHLOROPROPENE	2	U	
TRICHLOROETHENE (TCE)	2	U	
TRICHLOROFLUOROMETHANE	2	U	
VINYL CHLORIDE	2	U	

Validity (Val):

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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACIDIT. ALYSIS

Matrix : WATER

Page: 1  
 Date: 05/03/06

TtEMI Sample ID / Units	HWAAP09-120105-W (UG/L)			HWAAP10-120105-W (UG/L)			IRPMW14A-120105-W (UG/L)			IRPMW14B-120105-W (UG/L)			IRPMW15-120105-WER (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04		
Date Extracted / Analyzed	12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID		0.9 U			0.9 U			0.9 U			0.9 U			0.9 U	

Validity (Val):

- U - Non-detected
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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

AMMONIA AS NITROGEN ANALYSIS

Matrix : WATER

Page: 2  
 Date: 05/03/06

TtEMI Sample ID / Units	HWAAP09-120105-W (MG/L)			HWAAP10-120105-W (MG/L)			IRPMW14A-120105-W (MG/L)			IRPMW14B-120105-W (MG/L)			IRPMW15-120105-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04		
Date Extracted / Analyzed	12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.068	U	b	0.3	U		0.3	U		0.60		

Validity (Val):

- U - Non-detected
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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
Laboratory : Applied Physics & Chemistry Laboratory

MAJOR ANIONS ANALYSIS

Matrix : WATER

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Date: 05/03/06

TtEMI Sample ID / Units	IRPMW15-120105-WER (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04		
Analyte	Result	Val	Com
NITRATE AS N	0.028	J	gh
NITRITE AS N	0.05	UJ	h

Validity (Val):

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J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
b - Blank contamination problems  
c - Matrix spike recovery problems  
d - Duplicate (precision) problems  
e - Internal standard problems  
f - Calibration problems

g - Quantification below reporting limit  
h - Other problems, refer to data validation narrative  
k - Holding time exceeded  
p - >25%D between columns  
y - Resembles a fuel pattern but does not match the standard  
z - Unknown peaks, not a fuel pattern.

Note :

TtEMI Sample ID / Units	HWAAP09-120105-W (UG/L)			HWAAP10-120105-W (UG/L)			IRPMW14A-120105-W (UG/L)			IRPMW14B-120105-W (UG/L)			IRPMW15-120105-WER (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04		
Date Extracted / Analyzed	12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/07/05			12/06/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

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Applicable Comments (Com):

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 b - Blank contamination problems  
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 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	HWAAP09-120105-W (MG/L)			HWAAP10-120105-W (MG/L)			IRPMW14A-120105-W (MG/L)			IRPMW14B-120105-W (MG/L)			IRPMW15-120105-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04		
Date Extracted / Analyzed	12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.2	U		0.19	U	b	0.14	U	b	0.18	U	b	0.87		

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	HWAAP09-120105-W (UG/L)			HWAAP10-120105-W (UG/L)			IRPMW01-112905-W (UG/L)			IRPMW02-112905-W (UG/L)			IRPMW04-112905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04			12/01/05 WAB04			11/29/05 WAB04			11/29/05 WAB04			11/29/05 WAB04		
Date Analyzed	12/05/05			12/05/05			12/05/05			12/05/05			12/05/05		
Analyte	Result	Val	Com												
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	HWAAP09-120105-W (UG/L)			HWAAP10-120105-W (UG/L)			IRPMW01-112905-W (UG/L)			IRPMW02-112905-W (UG/L)			IRPMW04-112905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/01/05 WAB04			12/01/05 WAB04			11/29/05 WAB04			11/29/05 WAB04			11/29/05 WAB04		
Date Analyzed	12/05/05			12/05/05			12/05/05			12/05/05			12/05/05		
Analyte	Result	Val	Com												
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	g
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		0.3	J	g
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25% D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW05-112905-W (UG/L)			IRPMW05-112905-WER (UG/L)			IRPMW06-113005-W (UG/L)			IRPMW07-113005-WER (UG/L)			IRPMW09-113005-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/29/05 WAB04			11/29/05 WAB04			11/30/05 WAB04			11/30/05 WAB04			11/30/05 WAB04		
Date Analyzed	12/05/05			12/05/05			12/05/05			12/05/05			12/06/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
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 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

VOA 8260 ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW05-112905-W (UG/L)			IRPMW05-112905-WER (UG/L)			IRPMW06-113005-W (UG/L)			IRPMW07-113005-WER (UG/L)			IRPMW09-113005-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/29/05 WAB04			11/29/05 WAB04			11/30/05 WAB04			11/30/05 WAB04			11/30/05 WAB04		
Date Analyzed	12/05/05			12/05/05			12/05/05			12/05/05			12/06/05		
Analyte	Result			Result			Result			Result			Result		
	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U										
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	J	g	2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	1	J	g	2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	
	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
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 J - Estimated concentration

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Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25% between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW10-113005-W (UG/L)	IRPMW14A-120105-W (UG/L)	IRPMW14B-120105-W (UG/L)	IRPMW15-120105-WER (UG/L)	TB112905 (UG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	11/30/05 WAB04	12/01/05 WAB04	12/01/05 WAB04	12/01/05 WAB04	11/28/05 WAB04										
Date Analyzed	12/06/05	12/06/05	12/06/05	12/06/05	12/06/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1,1-TRICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1,2,2-TETRACHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1,2-TRICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1-DICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1-DICHLOROETHENE		2 U			2 U			2 U			2 U			2 U	
1,1-DICHLOROPROPENE		2 U			2 U			2 U			2 U			2 U	
1,2,3-TRICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2,3-TRICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
1,2,4-TRICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2,4-TRIMETHYLBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2-DIBROMOETHANE (EDB)		2 U			2 U			2 U			2 U			2 U	
1,2-DICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2-DICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,2-DICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
1,3,5-TRIMETHYLBENZENE		2 U			2 U			2 U			2 U			2 U	
1,3-DICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,3-DICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
1,4-DICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
2,2-DICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
2-CHLOROTOLUENE		2 U			2 U			2 U			2 U			2 U	
4-CHLOROTOLUENE		2 U			2 U			2 U			2 U			2 U	
4-ISOPROPYLTOLUENE		2 U			2 U			2 U			2 U			2 U	
BENZENE		1 U			1 U			1 U			1 U			1 U	
BROMOBENZENE		2 U			2 U			2 U			2 U			2 U	
BROMOCHLOROMETHANE		2 U			2 U			2 U			2 U			2 U	
BROMODICHLOROMETHANE		2 U			2 U			2 U			2 U			2 U	
BROMOFORM		2 U			2 U			2 U			2 U			2 U	
BROMOMETHANE		2 U			2 U			2 U			2 U			2 U	
CARBON TETRACHLORIDE		2 U			2 U			2 U			2 U			2 U	
CHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
CHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
CHLOROFORM		2 U			2 U			2 U			2 U			2 U	

Validity (Val):  
 U - Non-detected  
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Applicable Comments (Com):  
 a - Surrogate recovery problem  
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 d - Duplicate (precision) problems  
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 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW10-113005-W (UG/L)			IRPMW14A-120105-W (UG/L)			IRPMW14B-120105-W (UG/L)			IRPMW15-120105-WER (UG/L)			TB112905 (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			12/01/05 WAB04			11/28/05 WAB04		
Date Analyzed	12/06/05			12/06/05			12/06/05			12/06/05			12/06/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		0.6	J	g	0.6	J	g	2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	USGS10341MW23113005W (UG/L)			USGS10341MW25113005W (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB04			11/30/05 WAB04		
Date Analyzed	12/06/05			12/06/05		
Analyte	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U	
BENZENE	1	U		1	U	
BROMOBENZENE	2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U	
BROMOFORM	2	U		2	U	
BROMOMETHANE	2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U	
CHLOROBENZENE	2	U		2	U	
CHLOROETHANE	2	U		2	U	
CHLOROFORM	2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TEMI Sample ID / Units	USGS10341MW23113005W (UG/L)			USGS10341MW25113005W (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	11/30/05 WAB04			11/30/05 WAB04		
Date Analyzed	12/06/05			12/06/05		
Analyte	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U	
DIBROMOMETHANE	2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U	
DICHLOROMETHANE	2	U		2	U	
ETHYLBENZENE	2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U	
M&P-XYLENES	2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U	
N-BUTYLBENZENE	2	U		2	U	
N-PROPYLBENZENE	2	U		2	U	
NAPHTHALENE	2	U		2	U	
O-XYLENE	2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U	
STYRENE	2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U	
TETRACHLOROETHENE (PCE)	0.4	J	g	2	U	
TOLUENE	2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U	
VINYL CHLORIDE	2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25% D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

## ACIDITY ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

Page: 1  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW07-120205-W (UG/L)	IRPMW08A-120205-W (UG/L)	IRPMW15-120205-W (UG/L)						
Sample Location									
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00						
Date Sampled / SDG Number	12/02/05 WAB05	12/02/05 WAB05	12/02/05 WAB05						
Date Extracted / Analyzed	12/08/05 12/08/05	12/08/05 12/08/05	12/08/05 12/08/05						
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

AMMONIA AS NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

Page: 2  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW07-120205-W (MG/L)	IRPMW08A-120205-W (MG/L)	IRPMW15-120205-W (MG/L)						
Sample Location									
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00						
Date Sampled / SDG Number	12/02/05 WAB05	12/02/05 WAB05	12/02/05 WAB05						
Date Extracted / Analyzed	12/06/05 12/06/05	12/06/05 12/06/05	12/06/05 12/06/05						
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.078	U	b	0.55	U	b	0.3	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25% between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

Page: 3  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW07-120205-W (UG/L)			IRPMW08A-120205-W (UG/L)			IRPMW15-120205-W (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB05			12/02/05 WAB05			12/02/05 WAB05		
Date Extracted / Analyzed	12/07/05 12/08/05			12/07/05 12/08/05			12/07/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U			0.18	U
2-NITROTOLUENE		1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U			0.06	U
4-NITROTOLUENE		1 U			1 U			1 U	
HMX		1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U	
RDX	0.25	U		0.25	U			0.25	U
TETRYL		1 U			1 U			1 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW07-120205-W (MG/L)			IRPMW08A-120205-W (MG/L)			IRPMW15-120205-W (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/02/05 WAB05			12/02/05 WAB05			12/02/05 WAB05		
Date Extracted / Analyzed	12/06/05 12/06/05			12/06/05 12/06/05			12/06/05 12/06/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.22	U	b	0.85	U	b	0.19	U	b

Validity (Val):

- U - Non-detected
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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

ACIDITY ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	IRPMW11-120505-WER (UG/L)			IRPMW16-120505-W (UG/L)			IRPMW18-120505-W (UG/L)			IRPMW19-120505-W (UG/L)			IRPMW30-120505-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

TtEMI Sample ID / Units	IRPMW31-120505-W (UG/L)			IRPMW32-120505-W (UG/L)			IRPMW32-120505-WER (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/08/05 12/08/05			12/08/05 12/08/05			12/08/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW11-120505-WER (MG/L)			IRPMW16-120505-W (MG/L)			IRPMW18-120505-W (MG/L)			IRPMW19-120505-W (MG/L)			IRPMW30-120505-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.20	J	g	0.17	U	b	0.078	U	b	0.64	U	b	0.068	U	b

TtEMI Sample ID / Units	IRPMW31-120505-W (MG/L)			IRPMW32-120505-W (MG/L)			IRPMW32-120505-WER (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.3	U		0.098	J	g

Validity (Val):

- U - Non-detected
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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW11-120505-WER (MG/L)			IRPMW16-120505-W (MG/L)			IRPMW18-120505-W (MG/L)			IRPMW19-120505-W (MG/L)			IRPMW30-120505-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.026	J	g	2.7			3.3			10.4			0.16	J	g
NITRITE AS N	0.05	U		0.2	U										

TtEMI Sample ID / Units	IRPMW31-120505-W (MG/L)			IRPMW32-120505-W (MG/L)			IRPMW32-120505-WER (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	1.8			0.12	U	b	0.027	J	g
NITRITE AS N	0.2	U		0.2	U		0.05	U	

Validity (Val):  
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Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
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 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW11-120505-WER (UG/L)			IRPMW16-120505-W (UG/L)			IRPMW18-120505-W (UG/L)			IRPMW19-120505-W (UG/L)			IRPMW30-120505-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/07/05 12/08/05			12/07/05 12/08/05			12/07/05 12/08/05			12/07/05 12/08/05			12/07/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
3-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
HMX	1	U		1	U		1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U		1	U		1	U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL	1	U		1	U		1	U		1	U		1	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
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- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25% between columns
- y - Resembles a fuel pattern but does not match the standard
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW31-120505-W (UG/L)			IRPMW32-120505-W (UG/L)			IRPMW32-120505-WER (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/07/05 12/08/05			12/07/05 12/08/05			12/07/05 12/08/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U		1	U	
3-NITROTOLUENE	1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U		1	U	
HMX	1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U	
RDX	0.25	U		0.25	U		0.25	U	
TETRYL	1	U		1	U		1	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

## TOTAL KJELDAHL NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW11-120505-WER (MG/L)			IRPMW16-120505-W (MG/L)			IRPMW18-120505-W (MG/L)			IRPMW19-120505-W (MG/L)			IRPMW30-120505-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.44			0.40	U	b	0.29	U	b	1.3	U	b	0.24	U	b

TtEMI Sample ID / Units	IRPMW31-120505-W (MG/L)			IRPMW32-120505-W (MG/L)			IRPMW32-120505-WER (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB06			12/05/05 WAB06			12/05/05 WAB06		
Date Extracted / Analyzed	12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.19	U	b	0.18	U	b	0.32		

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

## ACIDITY ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW11-120605-W (UG/L)			IRPMW12A-120605-W (UG/L)			IRPMW12B-120605-W (UG/L)			IRPMW13-120605-W (UG/L)			IRPMW33-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

TtEMI Sample ID / Units	IRPMW34-120605-W (UG/L)			IRPMW35-120605-W (UG/L)			IRPMW36-120605-W (UG/L)			IRPMW36-120605-WER (UG/L)			IRPMW48-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		1.4	U		0.9	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
Laboratory : Applied Physics & Chemistry Laboratory

ACIDITY ANALYSIS

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW48-120605-WER (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07		
Date Extracted / Analyzed	12/12/05 12/14/05		
Analyte	Result	Val	Com
PICRIC ACID	0.9	U	

Validity (Val):

U - Non-detected  
UJ - Non-detected estimated  
R - Rejected  
J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
b - Blank contamination problems  
c - Matrix spike recovery problems  
d - Duplicate (precision) problems  
e - Internal standard problems  
f - Calibration problems

g - Quantification below reporting limit  
h - Other problems, refer to data validation narrative  
k - Holding time exceeded  
p - >25%D between columns  
y - Resembles a fuel pattern but does not match the standard  
z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	IRPMW11-120605-W (MG/L)			IRPMW12A-120605-W (MG/L)			IRPMW12B-120605-W (MG/L)			IRPMW13-120605-W (MG/L)			IRPMW33-120605-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled. / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.3	U		0.3	U		0.094	J	g	0.21	J	g

TtEMI Sample ID / Units	IRPMW34-120605-W (MG/L)			IRPMW35-120605-W (MG/L)			IRPMW36-120605-W (MG/L)			IRPMW36-120605-WER (MG/L)			IRPMW48-120605-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/09/05 12/09/05			12/09/05 12/09/05			12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.11	J	g	0.068	J	g	0.18	J	g	0.3	U		0.3	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
Laboratory : Applied Physics & Chemistry Laboratory

AMMONIA AS N GEN ANALYSIS

Matrix : WATER

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Date: 05/03/06

TtEMI Sample ID / Units	IRPMW48-120605-WER (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07		
Date Extracted / Analyzed	12/07/05 12/07/05		
Analyte	Result	Val	Com
AMMONIUM AS N	0.3	U	

Validity (Val):

U - Non-detected  
UJ - Non-detected estimated  
R - Rejected  
J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
b - Blank contamination problems  
c - Matrix spike recovery problems  
d - Duplicate (precision) problems  
e - Internal standard problems  
f - Calibration problems

g - Quantification below reporting limit  
h - Other problems, refer to data validation narrative  
k - Holding time exceeded  
p - >25%D between columns  
y - Resembles a fuel pattern but does not match the standard  
z - Unknown peaks, not a fuel pattern

Note :

MAJOR ANIONS ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	IRPMW11-120605-W (MG/L)			IRPMW12A-120605-W (MG/L)			IRPMW12B-120605-W (MG/L)			IRPMW13-120605-W (MG/L)			IRPMW33-120605-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.51			0.30			0.30			0.49			2.1		
NITRITE AS N	0.13	U		0.13	U		0.13	U		0.13	U		0.25	U	

TtEMI Sample ID / Units	IRPMW34-120605-W (MG/L)			IRPMW35-120605-W (MG/L)			IRPMW36-120605-W (MG/L)			IRPMW36-120605-WER (MG/L)			IRPMW48-120605-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.79			1.8			0.21			0.027	J	g	1.5		
NITRITE AS N	0.5	U		0.25	U		0.25	U		0.05	U		0.25	U	

Validity (Val):

- U - Non-detected
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- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
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Project : HAWTHORNE ARMY DEPOT  
Laboratory : Applied Physics & Chemistry Laboratory

MAJOR ANALYSIS

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW48-120605-WER (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07		
Analyte	Result	Val	Com
NITRATE AS N	0.030	J	g
NITRITE AS N	0.05	U	

Validity (Val):

U - Non-detected  
UJ - Non-detected estimated  
R - Rejected  
J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
b - Blank contamination problems  
c - Matrix spike recovery problems  
d - Duplicate (precision) problems  
e - Internal standard problems  
f - Calibration problems

g - Quantification below reporting limit  
h - Other problems, refer to data validation narrative  
k - Holding time exceeded  
p - >25%D between columns  
y - Resembles a fuel pattern but does not match the standard  
z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	IRPMW11-120605-W (UG/L)			IRPMW12A-120605-W (UG/L)			IRPMW12B-120605-W (UG/L)			IRPMW13-120605-W (UG/L)			IRPMW33-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

Validity (Val):

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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW34-120605-W (UG/L)			IRPMW35-120605-W (UG/L)			IRPMW36-120605-W (UG/L)			IRPMW36-120605-WER (UG/L)			IRPMW48-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		1.6	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		1.6	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U		1.6	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U		1.6	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		1.6	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		1.6	U		1	U	
2-NITROTOLUENE	1	U		1	U		1	U		0.28	U		0.18	U	
3-NITROTOLUENE	1	U		1	U		1	U		1.6	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		1.6	U		1	U	
4-NITROTOLUENE	1	U		1	U		1	U		0.093	U		0.06	U	
HMX	1	U		1	U		1	U		1.6	U		1	U	
NITROBENZENE	1	U		1	U		1	U		1.6	U		1	U	
RDX	1	U		1	U		1	U		1.6	U		1	U	
TETRYL	0.25	U		0.25	U		0.25	U		1.6	U		1	U	
	1	U		1	U		1	U		0.39	U		0.25	U	
										1.6	U		1	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW48-120605-WER (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07		
Date Extracted / Analyzed	12/12/05 12/14/05		
Analyte	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U	
1,3-DINITROBENZENE		1 U	
2,4,6-TRINITROTOLUENE		1 U	
2,4-DINITROTOLUENE		1 U	
2,6-DINITROTOLUENE		1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U	
2-NITROTOLUENE		1 U	
3-NITROTOLUENE		1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U	
4-NITROTOLUENE		1 U	
HMX		1 U	
NITROBENZENE		1 U	
RDX	0.25	U	
TETRYL		1 U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAH. NITROGEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW11-120605-W (MG/L)			IRPMW12A-120605-W (MG/L)			IRPMW12B-120605-W (MG/L)			IRPMW13-120605-W (MG/L)			IRPMW33-120605-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.2	U		0.2	U		0.13	U	b	0.14	U	b	0.67	U	b

TtEMI Sample ID / Units	IRPMW34-120605-W (MG/L)			IRPMW35-120605-W (MG/L)			IRPMW36-120605-W (MG/L)			IRPMW36-120605-WER (MG/L)			IRPMW48-120605-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Extracted / Analyzed	12/09/05 12/09/05			12/09/05 12/09/05			12/07/05 12/07/05			12/07/05 12/07/05			12/07/05 12/07/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.19	U	b	0.20	U	b	0.37	U	b	0.16	J	g	0.23	U	b

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
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Project : HAWTHORNE ARMY DEPOT  
Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

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Date: 05/03/06

TtEMI Sample ID / Units	IRPMW48-120605-WER (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07		
Date Extracted / Analyzed	12/07/05 12/07/05		
Analyte	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.19	J	g

Validity (Val):

U - Non-detected  
UJ - Non-detected estimated  
R - Rejected  
J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
b - Blank contamination problems  
c - Matrix spike recovery problems  
d - Duplicate (precision) problems  
e - Internal standard problems  
f - Calibration problems

g - Quantification below reporting limit  
h - Other problems, refer to data validation narrative  
k - Holding time exceeded  
p - >25%D between columns  
y - Resembles a fuel pattern but does not match the standard  
z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW11-120505-WER (UG/L)			IRPMW11-120605-W (UG/L)			IRPMW12A-120605-W (UG/L)			IRPMW12B-120605-W (UG/L)			IRPMW13-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Analyzed	12/09/05			12/09/05			12/09/05			12/10/05			12/10/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW11-120505-WER (UG/L)			IRPMW11-120605-W (UG/L)			IRPMW12A-120605-W (UG/L)			IRPMW12B-120605-W (UG/L)			IRPMW13-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Analyzed	12/09/05			12/09/05			12/09/05			12/10/05			12/10/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

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- k - Holding time exceeded
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TtEMI Sample ID / Units	IRPMW16-120505-W (UG/L)			IRPMW18-120505-W (UG/L)			IRPMW19-120505-W (UG/L)			IRPMW30-120505-W (UG/L)			IRPMW31-120505-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB07														
Date Analyzed	12/10/05			12/10/05			12/10/05			12/10/05			12/10/05		
Analyte	Result	Val	Com												
1,1,1,2-TETRACHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1,1-TRICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1,2,2-TETRACHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1,2-TRICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1-DICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,1-DICHLOROETHENE		2 U			2 U			2 U			2 U			2 U	
1,1-DICHLOROPROPENE		2 U			2 U			2 U			2 U			2 U	
1,2,3-TRICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2,3-TRICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
1,2,4-TRICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2,4-TRIMETHYLBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2-DIBROMOETHANE (EDB)		2 U			2 U			2 U			2 U			2 U	
1,2-DICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,2-DICHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
1,2-DICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
1,3,5-TRIMETHYLBENZENE		2 U			2 U			2 U			2 U			2 U	
1,3-DICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
1,3-DICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
1,4-DICHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
2,2-DICHLOROPROPANE		2 U			2 U			2 U			2 U			2 U	
2-CHLOROTOLUENE		2 U			2 U			2 U			2 U			2 U	
4-CHLOROTOLUENE		2 U			2 U			2 U			2 U			2 U	
4-ISOPROPYLTOLUENE		2 U			2 U			2 U			2 U			2 U	
BENZENE		1 U			1 U			1 U			1 U			1 U	
BROMOBENZENE		2 U			2 U			2 U			2 U			2 U	
BROMOCHLOROMETHANE		2 U			2 U			2 U			2 U			2 U	
BROMODICHLOROMETHANE		2 U			2 U			2 U			2 U			2 U	
BROMOFORM		2 U			2 U			2 U			2 U			2 U	
BROMOMETHANE		2 U			2 U			2 U			2 U			2 U	
CARBON TETRACHLORIDE		2 U			2 U			2 U			2 U			2 U	
CHLOROBENZENE		2 U			2 U			2 U			2 U			2 U	
CHLOROETHANE		2 U			2 U			2 U			2 U			2 U	
CHLOROFORM		2 U			2 U			2 U			2 U			1 J	g

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 k - Holding time exceeded  
 p - >25%D between columns  
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TtEMI Sample ID / Units	IRPMW16-120505-W (UG/L)			IRPMW18-120505-W (UG/L)			IRPMW19-120505-W (UG/L)			IRPMW30-120505-W (UG/L)			IRPMW31-120505-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB07														
Date Analyzed	12/10/05			12/10/05			12/10/05			12/10/05			12/10/05		
Analyte	Result	Val	Com												
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	0.7	J	g	0.4	J	g	2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		0.5	J	g	2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		0.6	J	g	2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

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TtEMI Sample ID / Units	IRPMW32-120505-W (UG/L)			IRPMW32-120505-WER (UG/L)			IRPMW33-120605-W (UG/L)			IRPMW34-120605-W (UG/L)			IRPMW35-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB07			12/05/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Analyzed	12/10/05			12/10/05			12/10/05			12/10/05			12/10/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
1,1,1-TRICHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
1,1,2,2-TETRACHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
1,1,2-TRICHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
1,1-DICHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
1,1-DICHLOROETHENE	2 U			2 U			2 U			2 U			2 U		
1,1-DICHLOROPROPENE	2 U			2 U			2 U			2 U			2 U		
1,2,3-TRICHLOROBENZENE	2 U			2 U			2 U			2 U			2 U		
1,2,3-TRICHLOROPROPANE	2 U			2 U			2 U			2 U			2 U		
1,2,4-TRICHLOROBENZENE	2 U			2 U			2 U			2 U			2 U		
1,2,4-TRIMETHYLBENZENE	2 U			2 U			2 U			2 U			2 U		
1,2-DIBROMOETHANE (EDB)	2 U			2 U			2 U			2 U			2 U		
1,2-DICHLOROBENZENE	2 U			2 U			2 U			2 U			2 U		
1,2-DICHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
1,2-DICHLOROPROPANE	2 U			2 U			2 U			2 U			2 U		
1,3,5-TRIMETHYLBENZENE	2 U			2 U			2 U			2 U			2 U		
1,3-DICHLOROBENZENE	2 U			2 U			2 U			2 U			2 U		
1,3-DICHLOROPROPANE	2 U			2 U			2 U			2 U			2 U		
1,4-DICHLOROBENZENE	2 U			2 U			2 U			2 U			2 U		
2,2-DICHLOROPROPANE	2 U			2 U			2 U			2 U			2 U		
2-CHLOROTOLUENE	2 U			2 U			2 U			2 U			2 U		
4-CHLOROTOLUENE	2 U			2 U			2 U			2 U			2 U		
4-ISOPROPYLTOLUENE	2 U			2 U			2 U			2 U			2 U		
BENZENE	1 U			1 U			1 U			1 U			1 U		
BROMOBENZENE	2 U			2 U			2 U			2 U			2 U		
BROMOCHLOROMETHANE	2 U			2 U			2 U			2 U			2 U		
BROMODICHLOROMETHANE	2 U			2 U			2 U			2 U			2 U		
BROMOFORM	2 U			2 U			2 U			2 U			2 U		
BROMOMETHANE	2 U			2 U			2 U			2 U			2 U		
CARBON TETRACHLORIDE	2 U			2 U			2 U			2 U			2 U		
CHLOROBENZENE	2 U			2 U			2 U			2 U			2 U		
CHLOROETHANE	2 U			2 U			2 U			2 U			2 U		
CHLOROFORM	2 U			2 U			1 J	g		2 U			2 U		

## Validity (Val):

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## Applicable Comments (Com):

a - Surrogate recovery problem  
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TtEMI Sample ID / Units	IRPMW32-120505-W (UG/L)			IRPMW32-120505-WER (UG/L)			IRPMW33-120605-W (UG/L)			IRPMW34-120605-W (UG/L)			IRPMW35-120605-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/05/05 WAB07			12/05/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07		
Date Analyzed	12/10/05			12/10/05			12/10/05			12/10/05			12/10/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		0.4	J	g	2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TCEMI Sample ID / Units	IRPMW36-120605-W (UG/L)			IRPMW36-120605-WER (UG/L)			IRPMW48-120605-W (UG/L)			IRPMW48-120605-WER (UG/L)			TB120505 (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/05/05 WAB07		
Date Analyzed	12/10/05			12/10/05			12/10/05			12/10/05			12/10/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		0.3	J	g	2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		3			2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW36-120605-W (UG/L)			IRPMW36-120605-WER (UG/L)			IRPMW48-120605-W (UG/L)			IRPMW48-120605-WER (UG/L)			TB120505 (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/06/05 WAB07			12/05/05 WAB07		
Date Analyzed	12/10/05			12/10/05			12/10/05			12/10/05			12/10/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	BLDG70MW01-120705-W (UG/L)			HWAAP15-120705-W (UG/L)			HWAAP15-120705-WER (UG/L)			HWAAP16A-120705-W (UG/L)			HWAAP16B-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID		0.9 U			0.9 U			0.9 U			0.9 U			0.9 U	

TtEMI Sample ID / Units	HWAAP17-120705-W (UG/L)			HWAAP18-120705-W (UG/L)			IRPMW24-120705-W (UG/L)			IRPMW24-120705-WER (UG/L)			IRPMW25-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID		0.9 U			0.9 U			0.9 U			0.9 U			0.9 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

## ACIDITY ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW26-120705-W (UG/L)	IRPMW27-120705-W (UG/L)	IRPMW28-120705-W (UG/L)						
Sample Location									
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00						
Date Sampled / SDG Number	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08						
Date Extracted / Analyzed	12/12/05 12/16/05	12/12/05 12/16/05	12/12/05 12/16/05						
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

AMMONIA A OGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	BLDG70MW01-120705-W (MG/L)	HWAAP15-120705-W (MG/L)	HWAAP15-120705-WER (MG/L)	HWAAP16A-120705-W (MG/L)	HWAAP16B-120705-W (MG/L)
Sample Location					
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Date Sampled / SDG Number	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08
Date Extracted / Analyzed	12/09/05 12/09/05	12/09/05 12/09/05	12/09/05 12/09/05	12/09/05 12/09/05	12/09/05 12/09/05
Analyte	Result Val Com	Result Val Com	Result Val Com	Result Val Com	Result Val Com
AMMONIUM AS N	0.094 U b	0.13 U b	0.094 J g	0.16 U b	0.3 U

TtEMI Sample ID / Units	HWAAP17-120705-W (MG/L)	HWAAP18-120705-W (MG/L)	IRPMW24-120705-W (MG/L)	IRPMW24-120705-WER (MG/L)	IRPMW25-120705-W (MG/L)
Sample Location					
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Date Sampled / SDG Number	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08
Date Extracted / Analyzed	12/09/05 12/09/05	12/09/05 12/09/05	12/09/05 12/09/05	12/09/05 12/09/05	12/09/05 12/09/05
Analyte	Result Val Com	Result Val Com	Result Val Com	Result Val Com	Result Val Com
AMMONIUM AS N	0.3 U	0.3 U	0.094 U b	0.17 J g	0.098 U b

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

AMMONIA AS NITROGEN ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	IRPMW26-120705-W (MG/L)			IRPMW27-120705-W (MG/L)			IRPMW28-120705-W (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.088	U	b	0.3	U		0.3	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	BLDG70MW01-120705-W (MG/L)			HWAAP15-120705-W (MG/L)			HWAAP15-120705-WER (MG/L)			HWAAP16A-120705-W (MG/L)			HWAAP16B-120705-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
	NITRATE AS N	0.19			0.21			0.04	U			0.19			0.16
NITRITE AS N	0.13	U		0.13	U		0.05	U			0.13	U		0.13	U

TtEMI Sample ID / Units	HWAAP17-120705-W (MG/L)			HWAAP18-120705-W (MG/L)			IRPMW24-120705-W (MG/L)			IRPMW24-120705-WER (MG/L)			IRPMW25-120705-W (MG/L)				
Sample Location																	
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00				
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08				
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com		
	NITRATE AS N	0.080	J	g	0.15			0.10	U	b		0.072	J	g		0.10	U
NITRITE AS N	0.13	U		0.13	U		0.13	U			0.13	U		0.13	U		

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

MAJOR ANIONS ANALYSIS

Matrix : WATER

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 Date: 05/03/01

TtEMI Sample ID / Units	IRPMW26-120705-W (MG/L)			IRPMW27-120705-W (MG/L)			IRPMW28-120705-W (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.60			1.0			0.070	U	b
NITRITE AS N	0.13	U		0.13	U		0.13	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	BLDG70MW01-120705-W (UG/L)			HWAAP15-120705-W (UG/L)			HWAAP15-120705-WER (UG/L)			HWAAP16A-120705-W (UG/L)			HWAAP16B-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
3-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
HMX	1	U		1	U		1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U		1	U		1	U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL	1	U		1	U		1	U		1	U		1	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

EXPLOSIVES ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	HWAAP17-120705-W (UG/L)			HWAAP18-120705-W (UG/L)			IRPMW24-120705-W (UG/L)			IRPMW24-120705-WER (UG/L)			IRPMW25-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TCEMI Sample ID / Units	IRPMW26-120705-W (UG/L)			IRPMW27-120705-W (UG/L)			IRPMW28-120705-W (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/12/05 12/19/05			12/12/05 12/19/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U		1	U	
3-NITROTOLUENE	1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U		1	U	
HMX	1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U	
RDX	0.25	U		0.25	U		0.25	U	
TETRYL	1	U		1	U		1	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	BLDG70MW01-120705-W (MG/L)			HWAAP15-120705-W (MG/L)			HWAAP15-120705-WER (MG/L)			HWAAP16A-120705-W (MG/L)			HWAAP16B-120705-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.14	U	b	0.28	U	b	0.11	J	g	0.35	U	b	0.098	U	b

TtEMI Sample ID / Units	HWAAP17-120705-W (MG/L)			HWAAP18-120705-W (MG/L)			IRPMW24-120705-W (MG/L)			IRPMW24-120705-WER (MG/L)			IRPMW25-120705-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08			12/07/05 WAB08		
Date Extracted / Analyzed	12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05			12/09/05 12/09/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.23	U	b	0.2	U		0.71	U	b	0.22			0.15	U	b

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW26-120705-W (MG/L)	IRPMW27-120705-W (MG/L)	IRPMW28-120705-W (MG/L)						
Sample Location									
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00						
Date Sampled / SDG Number	12/07/05 WAB08	12/07/05 WAB08	12/07/05 WAB08						
Date Extracted / Analyzed	12/12/05 12/12/05	12/12/05 12/12/05	12/12/05 12/12/05						
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.34	U	b	0.11	U	b	0.13	U	b

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	HWAAP09-120805-WER (UG/L)			IRPMW22-120805-W (UG/L)			IRPMW22-120805-WER (UG/L)			IRPMW23-120805-W (UG/L)			IRPMW29-120805-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/14/05			12/12/05 12/15/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

TtEMI Sample ID / Units	IRPMW37-120805-W (UG/L)			IRPMW38-120805-W (UG/L)			IRPMW39-120805-W (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/15/05			12/12/05 12/15/05			12/12/05 12/15/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		1.4	U		0.9	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

AMMONIA AS NIT. ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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TtEMI Sample ID / Units	HWAAP09-120805-WER (MG/L)			IRPMW22-120805-W (MG/L)			IRPMW22-120805-WER (MG/L)			IRPMW23-120805-W (MG/L)			IRPMW29-120805-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.088	J	g	0.3	U		0.39			0.31		

TtEMI Sample ID / Units	IRPMW37-120805-W (MG/L)			IRPMW38-120805-W (MG/L)			IRPMW39-120805-W (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.60			0.87			0.67		

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25% D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

MAJOR ANIONS ANALYSIS

Matrix : WATER

TtEMI Sample ID / Units	HWAAP09-120805-W (MG/L)			HWAAP09-120805-WER (MG/L)			HWAAP10-120805-W (MG/L)			IRPMW22-120805-W (MG/L)			IRPMW22-120805-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.065	U	b	0.032	J	g	1.4			0.20			0.030	J	g
NITRITE AS N	0.05	U		0.05	U		0.05	U		0.05	U		0.05	U	

TtEMI Sample ID / Units	IRPMW23-120805-W (MG/L)			IRPMW29-120805-W (MG/L)			IRPMW37-120805-W (MG/L)			IRPMW38-120805-W (MG/L)			IRPMW39-120805-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09														
Analyte	Result	Val	Com												
NITRATE AS N	5.6			0.28			0.18			0.17			0.17		
NITRITE AS N	0.05	U													

Validity (Val):  
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 J - Estimated concentration

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Applicable Comments (Com):

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 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
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## EXPLOSIVES LYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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TtEMI Sample ID / Units	HWAAP09-120805-WER (UG/L)			IRPMW22-120805-W (UG/L)			IRPMW22-120805-WER (UG/L)			IRPMW23-120805-W (UG/L)			IRPMW29-120805-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/14/05			12/12/05 12/15/05			12/12/05 12/15/05			12/12/05 12/15/05			12/12/05 12/15/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
3-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U		1	U		1	U		1	U	
HMX	1	U		1	U		1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U		1	U		1	U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL	1	U		1	U		1	U		1	U		1	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW37-120805-W (UG/L)			IRPMW38-120805-W (UG/L)			IRPMW39-120805-W (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/15/05			12/12/05 12/15/05			12/12/05 12/15/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1 U			1.6 U			1 U		
1,3-DINITROBENZENE	1 U			1.6 U			1 U		
2,4,6-TRINITROTOLUENE	1 U			1.6 U			1 U		
2,4-DINITROTOLUENE	1 U			1.6 U			1 U		
2,6-DINITROTOLUENE	1 U			1.6 U			1 U		
2-AMINO-4,6-DINITROTOLUENE	0.18 U			0.28 U			0.18 U		
2-NITROTOLUENE	1 U			1.6 U			1 U		
3-NITROTOLUENE	1 U			1.6 U			1 U		
4-AMINO-2,6-DINITROTOLUENE	0.06 U			0.093 U			0.06 U		
4-NITROTOLUENE	1 U			1.6 U			1 U		
HMX	1 U			1.6 U			1 U		
NITROBENZENE	1 U			1.6 U			1 U		
RDX	0.25 U			0.39 U			0.25 U		
TETRYL	1 U			1.6 U			1 U		

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems  
 g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	HWAAP09-120805-WER (MG/L)			IRPMW22-120805-W (MG/L)			IRPMW22-120805-WER (MG/L)			IRPMW23-120805-W (MG/L)			IRPMW29-120805-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.2	U		0.21	U	b	0.11	J	g	0.76			0.59		

TtEMI Sample ID / Units	IRPMW37-120805-W (MG/L)			IRPMW38-120805-W (MG/L)			IRPMW39-120805-W (MG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Extracted / Analyzed	12/12/05 12/12/05			12/12/05 12/12/05			12/12/05 12/12/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	1.1			1.8			0.97		

Validity (Val):  
 U - Non-detected  
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 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	BLDG70MW01-120705-W (UG/L)			HWAAP09-120805-WER (UG/L)			HWAAP15-120705-W (UG/L)			HWAAP15-120705-WER (UG/L)			HWAAP16A-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB09			12/08/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/19/05			12/19/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		2	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		1	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

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- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	BLDG70MW01-120705-W (UG/L)			HWAAP09-120805-WER (UG/L)			HWAAP15-120705-W (UG/L)			HWAAP15-120705-WER (UG/L)			HWAAP16A-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB09			12/08/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/19/05			12/19/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
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 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
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TtEMI Sample ID / Units	HWAAP16B-120705-W (UG/L)			HWAAP17-120705-W (UG/L)			HWAAP18-120705-W (UG/L)			IRPMW22-120805-W (UG/L)			IRPMW22-120805-WER (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/19/05			12/19/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
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VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TrEMI Sample ID / Units	IRPMW23-120805-W (UG/L)			IRPMW24-120705-W (UG/L)			IRPMW24-120705-WER (UG/L)			IRPMW25-120705-W (UG/L)			IRPMW26-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/19/05			12/19/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	0.4	J	g	2	U		2	U		2	U		2	U	

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TtEMI Sample ID / Units	IRPMW23-120805-W (UG/L)			IRPMW24-120705-W (UG/L)			IRPMW24-120705-WER (UG/L)			IRPMW25-120705-W (UG/L)			IRPMW26-120705-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09			12/07/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/19/05			12/19/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

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- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW27-120705-W (UG/L)			IRPMW28-120705-W (UG/L)			IRPMW29-120805-W (UG/L)			IRPMW37-120805-W (UG/L)			IRPMW38-120805-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB09			12/07/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/20/05			12/20/05		
Analyte	Result	Val	Com												
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

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- J - Estimated concentration

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Applicable Comments (Com):

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- b - Blank contamination problems
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- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW27-120705-W (UG/L)			IRPMW28-120705-W (UG/L)			IRPMW29-120805-W (UG/L)			IRPMW37-120805-W (UG/L)			IRPMW38-120805-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/07/05 WAB09			12/07/05 WAB09			12/08/05 WAB09			12/08/05 WAB09			12/08/05 WAB09		
Date Analyzed	12/19/05			12/19/05			12/19/05			12/20/05			12/20/05		
Analyte	Result	Val	Com												
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		6.6	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

## Validity (Val):

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 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
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 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW39-120805-W (UG/L)			TB120705 (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/07/05 WAB09		
Date Analyzed	12/20/05			12/20/05		
Analyte	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE		2 U			2 U	
1,1,1-TRICHLOROETHANE		2 U			2 U	
1,1,2,2-TETRACHLOROETHANE		2 U			2 U	
1,1,2-TRICHLOROETHANE		2 U			2 U	
1,1-DICHLOROETHANE		2 U			2 U	
1,1-DICHLOROETHENE		2 U			2 U	
1,1-DICHLOROPROPENE		2 U			2 U	
1,2,3-TRICHLOROBENZENE		2 U			2 U	
1,2,3-TRICHLOROPROPANE		2 U			2 U	
1,2,4-TRICHLOROBENZENE		2 U			2 U	
1,2,4-TRIMETHYLBENZENE		2 U			2 U	
1,2-DIBROMOETHANE (EDB)		2 U			2 U	
1,2-DICHLOROBENZENE		2 U			2 U	
1,2-DICHLOROETHANE		2 U			2 U	
1,2-DICHLOROPROPANE		2 U			2 U	
1,3,5-TRIMETHYLBENZENE		2 U			2 U	
1,3-DICHLOROBENZENE		2 U			2 U	
1,3-DICHLOROPROPANE		2 U			2 U	
1,4-DICHLOROBENZENE		2 U			2 U	
2,2-DICHLOROPROPANE		2 U			2 U	
2-CHLOROTOLUENE		2 U			2 U	
4-CHLOROTOLUENE		2 U			2 U	
4-ISOPROPYLTOLUENE		2 U			2 U	
BENZENE		1 U			1 U	
BROMOBENZENE		2 U			2 U	
BROMOCHLOROMETHANE		2 U			2 U	
BROMODICHLOROMETHANE		2 U			2 U	
BROMOFORM		2 U			2 U	
BROMOMETHANE		2 U			2 U	
CARBON TETRACHLORIDE		2 U			2 U	
CHLOROBENZENE		2 U			2 U	
CHLOROETHANE		2 U			2 U	
CHLOROFORM		2 U			2 U	

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- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW39-120805-W (UG/L)			TB120705 (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/08/05 WAB09			12/07/05 WAB09		
Date Analyzed	12/20/05			12/20/05		
Analyte	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U	
DIBROMOMETHANE	2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U	
DICHLOROMETHANE	2	U		2	U	
ETHYLBENZENE	2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U	
M&P-XYLENES	2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U	
N-BUTYLBENZENE	2	U		2	U	
N-PROPYLBENZENE	2	U		2	U	
NAPHTHALENE	2	U		2	U	
O-XYLENE	2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U	
STYRENE	2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U	
TOLUENE	2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U	
VINYL CHLORIDE	2	U		2	U	

## Validity (Val):

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TtEMI Sample ID / Units	IRPMW40A-120905-W (UG/L)			IRPMW40B-120905-W (UG/L)			IRPMW41-120905-W (UG/L)			IRPMW45-120905-W (UG/L)			IRPMW46-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

TtEMI Sample ID / Units	IRPMW46-120905-WER (UG/L)			IRPMW47-120905-W (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/12/05 12/16/05			12/12/05 12/16/05		
Analyte	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U	

Validity (Val):  
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Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

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 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
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Project HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

TtEMI Sample ID / Units	IRPMW40A-120905-W (MG/L)			IRPMW40B-120905-W (MG/L)			IRPMW41-120905-W (MG/L)			IRPMW45-120905-W (MG/L)			IRPMW46-120905-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/13/05 12/13/05			12/13/05 12/13/05			12/13/05 12/13/05			12/13/05 12/13/05			12/13/05 12/13/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.23	J	g	0.3	U		0.15	J	g	0.35		

TtEMI Sample ID / Units	IRPMW46-120905-WER (MG/L)			IRPMW47-120905-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/13/05 12/13/05			12/13/05 12/13/05		
Analyte	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.3	U	

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 J - Estimated concentration

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 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
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TtEMI Sample ID / Units	IRPMW40A-120905-W (MG/L)			IRPMW40B-120905-W (MG/L)			IRPMW41-120905-W (MG/L)			IRPMW45-120905-W (MG/L)			IRPMW46-120905-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.86			0.86			0.94			1.3			1.4		
NITRITE AS N	0.13	U		0.13	U		0.13	U		0.13	U		0.13	U	

TtEMI Sample ID / Units	IRPMW46-120905-WER (MG/L)			IRPMW47-120905-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10		
Analyte	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.04	U		1.4		
NITRITE AS N	0.05	U		0.13	U	

Validity (Val):  
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 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
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 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

## EXPLOSIVES ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW40A-120905-W (UG/L)	IRPMW40B-120905-W (UG/L)	IRPMW41-120905-W (UG/L)	IRPMW45-120905-W (UG/L)	IRPMW46-120905-W (UG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	12/09/05 WAB10	12/09/05 WAB10	12/09/05 WAB10	12/09/05 WAB10	12/09/05 WAB10										
Date Extracted / Analyzed	12/12/05 12/16/05	12/12/05 12/16/05	12/12/05 12/16/05	12/12/05 12/17/05	12/12/05 12/19/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

## Validity (Val):

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## Applicable Comments (Com):

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g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW46-120905-WER (UG/L)			IRPMW47-120905-W (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/12/05 12/17/05			12/12/05 12/19/05		
Analyte	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U	
2-NITROTOLUENE	1	U		1	U	
3-NITROTOLUENE	1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U	
4-NITROTOLUENE	1	U		1	U	
HMX	1	U		1	U	
NITROBENZENE	1	U		1	U	
RDX	0.25	U		0.25	U	
TETRYL	1	U		1	U	

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- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
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TtEMI Sample ID / Units	IRPMW40A-120905-W (MG/L)			IRPMW40B-120905-W (MG/L)			IRPMW41-120905-W (MG/L)			IRPMW45-120905-W (MG/L)			IRPMW46-120905-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/13/05 12/13/05			12/13/05 12/13/05			12/13/05 12/13/05			12/13/05 12/13/05			12/13/05 12/13/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.96	U	b	0.98	U	b	0.15	U	b	0.96	U	b	0.51	U	b

TtEMI Sample ID / Units	IRPMW46-120905-WER (MG/L)			IRPMW47-120905-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10		
Date Extracted / Analyzed	12/13/05 12/13/05			12/13/05 12/13/05		
Analyte	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.32			0.2	U	

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TtEMI Sample ID / Units	IRPMW40A-120905-W (UG/L)			IRPMW40B-120905-W (UG/L)			IRPMW41-120905-W (UG/L)			IRPMW45-120905-W (UG/L)			IRPMW46-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Analyzed	12/16/05			12/16/05			12/16/05			12/16/05			12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		1	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

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- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW40A-120905-W (UG/L)			IRPMW40B-120905-W (UG/L)			IRPMW41-120905-W (UG/L)			IRPMW45-120905-W (UG/L)			IRPMW46-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Analyzed	12/16/05			12/16/05			12/16/05			12/16/05			12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		0.3	J	g	2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

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TtEMI Sample ID / Units	IRPMW46-120905-WER (UG/L)			IRPMW47-120905-W (UG/L)			TB120905 (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Analyzed	12/16/05			12/16/05			12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		0.3	J	g	2	U	
BROMOFORM	2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U	
CHLOROFORM	2	U		3			2	U	

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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW46-120905-WER (UG/L)			IRPMW47-120905-W (UG/L)			TB120905 (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB10			12/09/05 WAB10			12/09/05 WAB10		
Date Analyzed	12/16/05			12/16/05			12/16/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACIDITY ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW49-120905-W (UG/L)			IRPMW50-120905-W (UG/L)			IRPMW50A-120905-W (UG/L)			IRPMW51-120905-WER (UG/L)			IRPMW51A-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11		
Date Extracted / Analyzed	12/16/05 12/20/05			12/16/05 12/20/05			12/16/05 12/20/05			12/16/05 12/20/05			12/16/05 12/20/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

TtEMI Sample ID / Units	IRPMW51B-120905-W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11		
Date Extracted / Analyzed	12/16/05 12/20/05		
Analyte	Result	Val	Com
PICRIC ACID	0.9	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
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AMMONIA AS N ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW49-120905-W (MG/L)	IRPMW50-120905-W (MG/L)	IRPMW50A-120905-W (MG/L)	IRPMW51-120905-WER (MG/L)	IRPMW51A-120905-W (MG/L)
Sample Location					
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Date Sampled / SDG Number	12/09/05 WAB11	12/09/05 WAB11	12/09/05 WAB11	12/09/05 WAB11	12/09/05 WAB11
Date Extracted / Analyzed	12/13/05 12/13/05	12/13/05 12/13/05	12/13/05 12/13/05	12/13/05 12/13/05	12/13/05 12/13/05
Analyte	Result Val Com	Result Val Com	Result Val Com	Result Val Com	Result Val Com
AMMONIUM AS N	0.3 U	0.088 U b	0.14 U b	0.13 J g	0.31 U b

TtEMI Sample ID / Units	IRPMW51B-120905-W (MG/L)
Sample Location	
Sample Depth (ft)	0.00 - 0.00
Date Sampled / SDG Number	12/09/05 WAB11
Date Extracted / Analyzed	12/13/05 12/13/05
Analyte	Result Val Com
AMMONIUM AS N	0.35 U b

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW49-120905-W (MG/L)			IRPMW50-120905-W (MG/L)			IRPMW50A-120905-W (MG/L)			IRPMW51-120905-WER (MG/L)			IRPMW51A-120905-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.14			0.38			3.0			0.04	U		0.15		
NITRITE AS N	0.13	U		0.13	U		0.8	U		0.05	U		0.13	U	

TtEMI Sample ID / Units	IRPMW51B-120905-W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11		
Analyte	Result	Val	Com
NITRATE AS N	0.14		
NITRITE AS N	0.13	U	

Validity (Val):

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- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TEMI Sample ID / Units	IRPMW49-120905-W (UG/L)			IRPMW50-120905-W (UG/L)			IRPMW50A-120905-W (UG/L)			IRPMW51-120905-WER (UG/L)			IRPMW51A-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11		
Date Extracted / Analyzed	12/16/05 12/20/05			12/16/05 12/20/05			12/16/05 12/20/05			12/16/05 12/20/05			12/16/05 12/20/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX	0.25	U		0.25	U		0.25	U		0.25	U		0.25	U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

Validity (Val):

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- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

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Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25% between columns
- y - Resembles a fuel pattern but does not match the standard
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## EXPLOSIVES ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW51B-120905-W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11		
Date Extracted / Analyzed	12/16/05 12/20/05		
Analyte	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U	
1,3-DINITROBENZENE		1 U	
2,4,6-TRINITROTOLUENE		1 U	
2,4-DINITROTOLUENE		1 U	
2,6-DINITROTOLUENE		1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U	
2-NITROTOLUENE		1 U	
3-NITROTOLUENE		1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U	
4-NITROTOLUENE		1 U	
HMX		1 U	
NITROBENZENE		1 U	
RDX	0.25	U	
TETRYL		1 U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
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 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
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## TOTAL KJELDAHL NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW49-120905-W (MG/L)	IRPMW50-120905-W (MG/L)	IRPMW50A-120905-W (MG/L)	IRPMW51-120905-WER (MG/L)	IRPMW51A-120905-W (MG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	12/09/05 WAB11	12/09/05 WAB11	12/09/05 WAB11	12/09/05 WAB11	12/09/05 WAB11										
Date Extracted / Analyzed	12/13/05 12/13/05	12/13/05 12/13/05	12/13/05 12/13/05	12/13/05 12/13/05	12/13/05 12/13/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.11	U	b	0.21	U	b	0.20	U	b	0.17	J	g	1.8		

TtEMI Sample ID / Units	IRPMW51B-120905-W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11		
Date Extracted / Analyzed	12/13/05 12/13/05		
Analyte	Result	Val	Com
TOTAL KJELDAHL NITROGEN	1.0		

## Validity (Val):

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 J - Estimated concentration

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## Applicable Comments (Com):

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 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
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TtEMI Sample ID / Units	IRPMW49-120905-W (UG/L)			IRPMW50-120905-W (UG/L)			IRPMW50A-120905-W (UG/L)			IRPMW51-120905-WER (UG/L)			IRPMW51A-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11		
Date Analyzed	12/20/05			12/20/05			12/20/05			12/20/05			12/20/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		1	J	g	2	U		2	U	

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Applicable Comments (Com):

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 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW49-120905-W (UG/L)			IRPMW50-120905-W (UG/L)			IRPMW50A-120905-W (UG/L)			IRPMW51-120905-WER (UG/L)			IRPMW51A-120905-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11			12/09/05 WAB11		
Date Analyzed	12/20/05			12/20/05			12/20/05			12/20/05			12/20/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U	b	2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		0.4	J	g	2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		11	U		232	U	h	2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

## Validity (Val):

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 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

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## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
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g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

VOA 8260 ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW51B-120905-W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11		
Date Analyzed	12/20/05		
Analyte	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U	
1,1,1-TRICHLOROETHANE	2	U	
1,1,2,2-TETRACHLOROETHANE	2	U	
1,1,2-TRICHLOROETHANE	2	U	
1,1-DICHLOROETHANE	2	U	
1,1-DICHLOROETHENE	2	U	
1,1-DICHLOROPROPENE	2	U	
1,2,3-TRICHLOROBENZENE	2	U	
1,2,3-TRICHLOROPROPANE	2	U	
1,2,4-TRICHLOROBENZENE	2	U	
1,2,4-TRIMETHYLBENZENE	2	U	
1,2-DIBROMOETHANE (EDB)	2	U	
1,2-DICHLOROBENZENE	2	U	
1,2-DICHLOROETHANE	2	U	
1,2-DICHLOROPROPANE	2	U	
1,3,5-TRIMETHYLBENZENE	2	U	
1,3-DICHLOROBENZENE	2	U	
1,3-DICHLOROPROPANE	2	U	
1,4-DICHLOROBENZENE	2	U	
2,2-DICHLOROPROPANE	2	U	
2-CHLOROTOLUENE	2	U	
4-CHLOROTOLUENE	2	U	
4-ISOPROPYLTOLUENE	2	U	
BENZENE	1	U	
BROMOBENZENE	2	U	
BROMOCHLOROMETHANE	2	U	
BROMODICHLOROMETHANE	2	U	
BROMOFORM	2	U	
BROMOMETHANE	2	U	
CARBON TETRACHLORIDE	2	U	
CHLOROBENZENE	2	U	
CHLOROETHANE	2	U	
CHLOROFORM	2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW51B-120905-W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/09/05 WAB11		
Date Analyzed	12/20/05		
Analyte	Result	Val	Com
CHLOROMETHANE	2	U	
CIS-1,2-DICHLOROETHENE	2	U	
CIS-1,3-DICHLOROPROPENE	2	U	
DIBROMOCHLOROMETHANE	2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U	
DIBROMOMETHANE	2	U	
DICHLORODIFLUOROMETHANE	2	U	
DICHLOROMETHANE	2	U	
ETHYLBENZENE	2	U	
HEXACHLOROBUTADIENE	2	U	
ISOPROPYLBENZENE	2	U	
M&P-XYLENES	2	U	
METHYL TERTIARY BUTYL ETHER	2	U	
N-BUTYLBENZENE	2	U	
N-PROPYLBENZENE	2	U	
NAPHTHALENE	2	U	
O-XYLENE	2	U	
SEC-BUTYLBENZENE	2	U	
STYRENE	2	U	
TERT-BUTYLBENZENE	2	U	
TETRACHLOROETHENE (PCE)	2	U	
TOLUENE	2	U	
TRANS-1,2-DICHLOROETHENE	2	U	
TRANS-1,3-DICHLOROPROPENE	2	U	
TRICHLOROETHENE (TCE)	2	U	
TRICHLOROFLUOROMETHANE	2	U	
VINYL CHLORIDE	2	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACIDITY ANALYSIS

Matrix : WATER

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TtEMI Sample ID / Units	DZB10113MW8-121205-W (UG/L)			DZB10113MW8-121205-WER (UG/L)			LRPMW37A-121205-W (UG/L)			IRPMW56-121205-W (UG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12		
Date Extracted / Analyzed	12/20/05 12/20/05			12/20/05 12/20/05			12/20/05 12/20/05			12/21/05 12/21/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

AMMONIA AS N. N ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TEMI Sample ID / Units	DZB10113MW8-121205-W (MG/L)			DZB10113MW8-121205-WER (MG/L)			LRPMW37A-121205-W (MG/L)			IRPMW56-121205-W (MG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12		
Date Extracted / Analyzed	12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.15	J+	cg	0.098	UJ	bc	0.3	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	DZB10113MWB-121205-W (MG/L)			DZB10113MWB-121205-WER (MG/L)			LRPMW37A-121205-W (MG/L)			IRPMW56-121205-W (MG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.13	U	b	0.031	J	g	0.19			1.6		
NITRITE AS N	0.13	U		0.05	U		0.13	U		0.13	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	DZB10113MW8-121205-W (UG/L)			DZB10113MW8-121205-WER (UG/L)			IRPMW37A-121205-W (UG/L)			IRPMW56-121205-W (UG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12		
Date Extracted / Analyzed	12/16/05 12/21/05			12/16/05 12/21/05			12/16/05 12/21/05			12/16/05 12/21/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		10	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		10	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U		10	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U		10	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		10	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U		0.18	U		1.8	U	
2-NITROTOLUENE	1	U		1	U		1	U		10	U	
3-NITROTOLUENE	1	U		1	U		1	U		10	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U		0.06	U		0.6	U	
4-NITROTOLUENE	1	U		1	U		1	U		10	U	
HMX	1	U		1	U		1	U		10	U	
NITROBENZENE	1	U		1	U		1	U		10	U	
RDX	0.25	U		0.25	U		2.4	U		329	U	
TETRYL	1	U		1	U		1	U		10	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL NITROGEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	DZB10113MW8-121205-W (MG/L)			DZB10113MW8-121205-WER (MG/L)			LRPMW37A-121205-W (MG/L)			IRPMW56-121205-W (MG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12			12/12/05 WAB12		
Date Extracted / Analyzed	12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
	TOTAL KJELDAHL NITROGEN	0.59	U	b	0.64			0.37	U	b	0.59	U

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW44-121305-W (UG/L)			IRPMW44-121305-WER (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/13/05 WAB13			12/13/05 WAB13		
Date Extracted / Analyzed	12/20/05 12/20/05			12/20/05 12/20/05		
Analyte	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

AMMONIA AS NITROGEN ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW44-121305-W (MG/L)	IRPMW44-121305-WER (MG/L)				
Sample Location						
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00				
Date Sampled / SDG Number	12/13/05 WAB13	12/13/05 WAB13				
Date Extracted / Analyzed	12/17/05 12/17/05	12/17/05 12/17/05				
Analyte	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.078	J+	cg

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

MAJOR ANION. LYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW07-121305-W (MG/L)			IRPMW14A-121305-W (MG/L)			IRPMW14B-121305-W (MG/L)			IRPMW15-121305-W (MG/L)			IRPMW44-121305-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/13/05 WAB13			12/13/05 WAB13			12/13/05 WAB13			12/13/05 WAB13			12/13/05 WAB13		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	3.3			4.7			4.8			13.5			2.8		
NITRITE AS N	0.13	U		0.13	U		0.1	U		0.25	U		0.13	U	

TtEMI Sample ID / Units	IRPMW44-121305-WER (MG/L)			IRPMW8A-121305-W (MG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/13/05 WAB13			12/13/05 WAB13		
Analyte	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.04	U		0.14	J	g
NITRITE AS N	0.05	U		0.2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25% D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW44-121305-W (UG/L)			IRPMW44-121305-WER (UG/L)		
Sample Location						
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/13/05 WAB13			12/13/05 WAB13		
Date Extracted / Analyzed	12/16/05 12/20/05			12/16/05 12/20/05		
Analyte	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U	
2-NITROTOLUENE		1 U			1 U	
3-NITROTOLUENE		1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U	
4-NITROTOLUENE		1 U			1 U	
HMX		1 U			1 U	
NITROBENZENE		1 U			1 U	
RDX	0.25	U		0.25	U	
TETRYL		1 U			1 U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

TOTAL KJELDAHL N- N ANALYSIS

Matrix : WATER

Page: 5  
 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW44-121305-W (MG/L)	IRPMW44-121305-WER (MG/L)				
Sample Location						
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00				
Date Sampled / SDG Number	12/13/05 WAB13	12/13/05 WAB13				
Date Extracted / Analyzed	12/17/05 12/17/05	12/17/05 12/17/05				
Analyte	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.2	U		0.41		

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25% D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACIDITY ANALYSIS

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW20-121405-W (UG/L)			IRPMW20-121405-WER (UG/L)			IRPMW21A-121405-W (UG/L)			IRPMW21B-121405-W (UG/L)			IRPMW42-121405-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14		
Date Extracted / Analyzed	12/20/05 12/20/05			12/20/05 12/20/05			12/20/05 12/20/05			12/20/05 12/20/05			12/20/05 12/20/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

TtEMI Sample ID / Units	IRPMW43-121405-W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14		
Date Extracted / Analyzed	12/20/05 12/20/05		
Analyte	Result	Val	Com
PICRIC ACID	0.9	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

AMMONIA AS NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW20-121405-W (MG/L)			IRPMW20-121405-WER (MG/L)			IRPMW21A-121405-W (MG/L)			IRPMW21B-121405-W (MG/L)			IRPMW42-121405-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14		
Date Extracted / Analyzed	12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.3	U		0.3	U		0.3	U		0.3	U		0.3	U	

TtEMI Sample ID / Units	IRPMW43-121405-W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14		
Date Extracted / Analyzed	12/17/05 12/17/05		
Analyte	Result	Val	Com
AMMONIUM AS N	0.3	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

MAJOR ANIONS ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW20-121405-W (MG/L)			IRPMW20-121405-WER (MG/L)			IRPMW21A-121405-W (MG/L)			IRPMW21B-121405-W (MG/L)			IRPMW42-121405-W (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	5.1			0.027	J	g	14.0			14.3			1.8		
NITRITE AS N	0.13	U		0.05	U		0.25	U		0.25	U		0.13	U	

TtEMI Sample ID / Units	IRPMW43-121405-W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14		
Analyte	Result	Val	Com
NITRATE AS N	2.5		
NITRITE AS N	0.13	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

## EXPLOSION ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TEMI Sample ID / Units	IRPMW20-121405-W (UG/L)	IRPMW20-121405-WER (UG/L)	IRPMW21A-121405-W (UG/L)	IRPMW21B-121405-W (UG/L)	IRPMW42-121405-W (UG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	12/14/05 WAB14	12/14/05 WAB14	12/14/05 WAB14	12/14/05 WAB14	12/14/05 WAB14										
Date Extracted / Analyzed	12/16/05 12/20/05	12/16/05 12/20/05	12/16/05 12/20/05	12/16/05 12/20/05	12/16/05 12/21/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			1 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE		0.18 U			0.18 U			0.18 U			0.18 U			0.18 U	
2-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE		0.06 U			0.06 U			0.06 U			0.06 U			0.06 U	
4-NITROTOLUENE		1 U			1 U			1 U			1 U			1 U	
HMX		1 U			1 U			1 U			1 U			1 U	
NITROBENZENE		1 U			1 U			1 U			1 U			1 U	
RDX		0.01 U			0.01 U			0.25 U			0.25 U			0.25 U	
TETRYL		1 U			1 U			1 U			1 U			1 U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

EXPLOSIVES ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW43-121405-W (UG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14		
Date Extracted / Analyzed	12/16/05 12/21/05		
Analyte	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U	
1,3-DINITROBENZENE	1	U	
2,4,6-TRINITROTOLUENE	1	U	
2,4-DINITROTOLUENE	1	U	
2,6-DINITROTOLUENE	1	U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U	
2-NITROTOLUENE	1	U	
3-NITROTOLUENE	1	U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U	
4-NITROTOLUENE	1	U	
HMX	1	U	
NITROBENZENE	1	U	
RDX	0.25	U	
TETRYL	1	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

## TOTAL KJELDAHL NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW20-121405-W (MG/L)	IRPMW20-121405-WER (MG/L)	IRPMW21A-121405-W (MG/L)	IRPMW21B-121405-W (MG/L)	IRPMW42-121405-W (MG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	12/14/05 WAB14	12/14/05 WAB14	12/14/05 WAB14	12/14/05 WAB14	12/14/05 WAB14										
Date Extracted / Analyzed	12/17/05 12/17/05	12/17/05 12/17/05	12/17/05 12/17/05	12/17/05 12/17/05	12/17/05 12/17/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.11	J	g	0.2	U		0.15	J	g	0.17	J	g	0.46		

TtEMI Sample ID / Units	IRPMW43-121405-W (MG/L)		
Sample Location			
Sample Depth (ft)	0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14		
Date Extracted / Analyzed	12/17/05 12/17/05		
Analyte	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.66		

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	DZB10113MW8-121205-W (UG/L)			DZB10113MW8-121205-WER (UG/L)			LRPMW20-121405-W (UG/L)			IRPMW20-121405-WER (UG/L)			IRPMW21A-121405-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB14			12/12/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14		
Date Analyzed	12/21/05			12/21/05			12/21/05			12/21/05			12/21/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		0.6	J	g	0.8	J	g	2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UU - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	DZB10113MW8-121205-W (UG/L)			DZB10113MW8-121205-WER (UG/L)			LRPMW20-121405-W (UG/L)			IRPMW20-121405-WER (UG/L)			IRPMW21A-121405-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/12/05 WAB14			12/12/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/14/05 WAB14		
Date Analyzed	12/21/05			12/21/05			12/21/05			12/21/05			12/21/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		0.6	J	g	2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):

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- UJ - Non-detected estimated
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- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW21B-121405-W (UG/L)			IRPMW37A-121205-W (UG/L)			IRPMW42-121405-W (UG/L)			IRPMW43-121405-W (UG/L)			IRPMW44-121305-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14			12/12/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/13/05 WAB14		
Date Analyzed	12/21/05			12/21/05			12/21/05			12/21/05			12/22/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		0.3	J	g	2	U		0.5	J	g
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		0.5	J	g	2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		4.6			2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		3			4		

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):  
 a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	IRPMW21B-121405-W (UG/L)			IRPMW37A-121205-W (UG/L)			IRPMW42-121405-W (UG/L)			IRPMW43-121405-W (UG/L)			IRPMW44-121305-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/14/05 WAB14			12/12/05 WAB14			12/14/05 WAB14			12/14/05 WAB14			12/13/05 WAB14		
Date Analyzed	12/21/05			12/21/05			12/21/05			12/21/05			12/22/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

Validity (Val):  
 U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

VOA 8260 ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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TtEMI Sample ID / Units	IRPMW44-121305-WER (UG/L)			IRPMW56-121205-W (UG/L)			TB121205 (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/13/05 WAB14			12/12/05 WAB14			12/12/05 WAB14		
Date Analyzed	12/22/05			12/22/05			12/21/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U	

Validity (Val):

- U - Non-detected
- UJ - Non-detected estimated
- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems
- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
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Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	IRPMW44-121305-WER (UG/L)			IRPMW56-121205-W (UG/L)			TB121205 (UG/L)		
Sample Location									
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/13/05 WAB14			12/12/05 WAB14			12/12/05 WAB14		
Date Analyzed	12/22/05			12/22/05			12/21/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		1	J	g	2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

ACIDITY ANALYSIS

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	DZB10144MW1-121505-W (UG/L)			DZB10144MW2-121505-W (UG/L)			DZB10144MW3-121505-W (UG/L)			IRPMW50B-121505-W (UG/L)			IRPMW50B-121505-WER (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15		
Date Extracted / Analyzed	12/22/05 12/22/05			12/22/05 12/22/05			12/22/05 12/22/05			12/22/05 12/22/05			12/22/05 12/22/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U		0.9	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

AMMONIA AS NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	DZB10144MW1-121505-W (MG/L)	DZB10144MW2-121505-W (MG/L)	DZB10144MW3-121505-W (MG/L)	IRPMW50B-121505-W (MG/L)	IRPMW50B-121505-WER (MG/L)										
Sample Location															
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00										
Date Sampled / SDG Number	12/15/05 WAB15	12/15/05 WAB15	12/15/05 WAB15	12/15/05 WAB15	12/15/05 WAB15										
Date Extracted / Analyzed	12/17/05 12/17/05	12/17/05 12/17/05	12/17/05 12/17/05	12/17/05 12/17/05	12/17/05 12/17/05										
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.14	J+	cg	0.078	J+	cg	0.098	J+	cg	0.55	J+	c	0.3	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems  
 g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

MAJOR ANIONS ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	DZB10144MW1-121505-W (MG/L)			DZB10144MW2-121505-W (MG/L)			DZB10144MW3-121505-W (MG/L)			IRPMW50B-121505-W (MG/L)			IRPMW50B-121505-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.12	U	b	0.12	U	b	1.8			0.20			0.026	J	g
NITRITE AS N	0.13	U		0.13	U		0.13	U		0.13	U		0.018	J	g

Validity (Val):

- U - Non-detected
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- R - Rejected
- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

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 Date: 05/03/06

TtEMI Sample ID / Units	DZB10144MW1-121505-W (UG/L)			DZB10144MW2-121505-W (UG/L)			DZB10144MW3-121505-W (UG/L)			IRPMW50B-121505-W (UG/L)			IRPMW50B-121505-WER (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15		
Date Extracted / Analyzed	12/20/05 12/22/05			12/20/05 12/22/05			12/20/05 12/22/05			12/20/05 12/22/05			12/20/05 12/22/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE		1 U			1 U			10 U			1 U			1 U	
1,3-DINITROBENZENE		1 U			1 U			10 U			1 U			1 U	
2,4,6-TRINITROTOLUENE		1 U			1 U			10 U			1 U			1 U	
2,4-DINITROTOLUENE		1 U			1 U			10 U			1 U			1 U	
2,6-DINITROTOLUENE		1 U			1 U			10 U			1 U			1 U	
2-AMINO-4,6-DINITROTOLUENE	0.18	U		0.18	U			1.8 U		0.18	U			0.18	U
2-NITROTOLUENE		1 U			1 U			10 U			1 U			1 U	
3-NITROTOLUENE		1 U			1 U			10 U			1 U			1 U	
4-AMINO-2,6-DINITROTOLUENE	0.06	U		0.06	U			0.6 U		0.06	U			0.06	U
4-NITROTOLUENE		1 U			1 U			10 U			1 U			1 U	
HMX		1 U			1 U			10 U			1 U			1 U	
NITROBENZENE		1 U			1 U			10 U			1 U			1 U	
RDX	0.25	U		0.25	U			443		0.25	U			0.25	U
TETRYL		1 U			1 U			10 U			1 U			1 U	

## Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25% D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	DZB10144MW1-121505-W (MG/L)			DZB10144MW2-121505-W (MG/L)			DZB10144MW3-121505-W (MG/L)			IRPMW50B-121505-W (MG/L)			IRPMW50B-121505-WER (MG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15			12/15/05 WAB15		
Date Extracted / Analyzed	12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05			12/17/05 12/17/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
TOTAL KJELDAHL NITROGEN	0.49	U	b	0.22	U	b	0.65	U	b	1.0	U	b	0.23		

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	DZB10113MW4-121605-W (UG/L)	DZB10113MW5-121605-W (UG/L)	IRPMW52-121605-W (UG/L)	IRPMW52-121605-WER (UG/L)								
Sample Location												
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00								
Date Sampled / SDG Number	12/16/05 WAB16	12/16/05 WAB16	12/16/05 WAB16	12/16/05 WAB16								
Date Extracted / Analyzed	12/22/05 12/22/05	12/22/05 12/22/05	12/22/05 12/22/05	12/22/05 12/22/05								
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
PICRIC ACID	0.9	U		0.9	U		0.9	U		0.9	U	

Validity (Val):

U - Non-detected  
 UJ - Non-detected estimated  
 R - Rejected  
 J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
 c - Matrix spike recovery problems  
 d - Duplicate (precision) problems  
 e - Internal standard problems  
 f - Calibration problems

g - Quantification below reporting limit  
 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
 p - >25%D between columns  
 y - Resembles a fuel pattern but does not match the standard  
 z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	DZB10113MW4-121605-W (MG/L)			DZB10113MW5-121605-W (MG/L)			IRPMW52-121605-W (MG/L)			IRPMW52-121605-WER (MG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/16/05 WAB16			12/16/05 WAB16			12/16/05 WAB16			12/16/05 WAB16		
Date Extracted / Analyzed	12/22/05 12/22/05			12/22/05 12/22/05			12/22/05 12/22/05			12/22/05 12/22/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
AMMONIUM AS N	0.64	U	b	0.3	U		0.19	U	b	0.17	J	g

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- J - Estimated concentration

NA - Not Analyzed

Applicable Comments (Com):

- a - Surrogate recovery problem
- b - Blank contamination problems
- c - Matrix spike recovery problems
- d - Duplicate (precision) problems
- e - Internal standard problems
- f - Calibration problems

- g - Quantification below reporting limit
- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	DZB10113MW4-121605-W (MG/L)			DZB10113MW5-121605-W (MG/L)			IRPMW52-121605-W (MG/L)			IRPMW52-121605-WER (MG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/16/05 WAB16			12/16/05 WAB16			12/16/05 WAB16			12/16/05 WAB16		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
NITRATE AS N	0.073	U	b	0.068	U	b	0.20			0.028	J	g
NITRITE AS N	0.13	U		0.13	U		0.13	U		0.05	U	

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- h - Other problems, refer to data validation narrative
- k - Holding time exceeded
- p - >25%D between columns
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- z - Unknown peaks, not a fuel pattern

Note :

TtEMI Sample ID / Units	DZB10113MW4-121605-W (UG/L)			DZB10113MW5-121605-W (UG/L)			IRPMW52-121605-W (UG/L)			IRPMW52-121605-WER (UG/L)		
Sample Location												
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/16/05 WAB16			12/16/05 WAB16			12/16/05 WAB16			12/16/05 WAB16		
Date Extracted / Analyzed	12/20/05 12/22/05			12/20/05 12/22/05			12/20/05 12/22/05			12/20/05 12/22/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
1,3,5-TRINITROBENZENE	1	U		1	U		1	U		1	U	
1,3-DINITROBENZENE	1	U		1	U		1	U		1	U	
2,4,6-TRINITROTOLUENE	1	U		1	U		1	U		1	U	
2,4-DINITROTOLUENE	1	U		1	U		1	U		1	U	
2,6-DINITROTOLUENE	1	U		1	U		1	U		1	U	
2-AMINO-4,6-DINITROTOLUENE	1	U		1	U		1	U		1	U	
2-NITROTOLUENE	0.18	U		0.18	U		0.18	U		0.18	U	
3-NITROTOLUENE	1	U		1	U		1	U		1	U	
4-AMINO-2,6-DINITROTOLUENE	1	U		1	U		1	U		1	U	
4-NITROTOLUENE	0.06	U		0.06	U		0.06	U		0.06	U	
HMX	1	U		1	U		1	U		1	U	
NITROBENZENE	1	U		1	U		1	U		1	U	
RDX	1	U		1	U		1	U		1	U	
TETRYL	0.25	U		0.25	U		0.25	U		0.25	U	
	1	U		1	U		1	U		1	U	

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## TOTAL KJELDAHL NITROGEN ANALYSIS

Project : HAWTHORNE ARMY DEPOT  
 Laboratory : Applied Physics & Chemistry Laboratory

Matrix : WATER

Page: 5  
 Date: 05/03/06

TtEMI Sample ID / Units	DZB10113MW4-121605-W (MG/L)	DZB10113MW5-121605-W (MG/L)	IRPMW52-121605-W (MG/L)	IRPMW52-121605-WER (MG/L)
Sample Location				
Sample Depth (ft)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Date Sampled / SDG Number	12/16/05 WAB16	12/16/05 WAB16	12/16/05 WAB16	12/16/05 WAB16
Date Extracted / Analyzed	12/22/05 12/22/05	12/22/05 12/22/05	12/22/05 12/22/05	12/22/05 12/22/05
Analyte	Result Val Com	Result Val Com	Result Val Com	Result Val Com
TOTAL KJELDAHL NITROGEN	0.94 U b	0.14 U b	0.38 U b	0.36

## Validity (Val):

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 J - Estimated concentration

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## Applicable Comments (Com):

a - Surrogate recovery problem  
 b - Blank contamination problems  
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 d - Duplicate (precision) problems  
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 f - Calibration problems

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 h - Other problems, refer to data validation narrative  
 k - Holding time exceeded  
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Note :

TtEMI Sample ID / Units	DZB10113MW4-121605-W (UG/L)			DZB10113MW5-121605-W (UG/L)			DZB10144MW1-121505-W (UG/L)			DZB10144MW2-121505-W (UG/L)			DZB10144MW3-121505-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/16/05 WAB16			12/16/05 WAB16			12/15/05 WAB16			12/15/05 WAB16			12/15/05 WAB16		
Date Analyzed	12/20/05			12/20/05			12/21/05			12/21/05			12/21/05		
Analyte	Result	Val	Com												
1,1,1,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,1-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2,2-TETRACHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1,2-TRICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
1,1-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,3-TRICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2,4-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DIBROMOETHANE (EDB)	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
1,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,3,5-TRIMETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
1,3-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
1,4-DICHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
2,2-DICHLOROPROPANE	2	U		2	U		2	U		2	U		2	U	
2-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-CHLOROTOLUENE	2	U		2	U		2	U		2	U		2	U	
4-ISOPROPYLTOLUENE	2	U		2	U		2	U		2	U		2	U	
BENZENE	1	U		1	U		1	U		1	U		1	U	
BROMOBENZENE	2	U		2	U		2	U		2	U		2	U	
BROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMODICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
BROMOFORM	2	U		2	U		2	U		2	U		2	U	
BROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
CARBON TETRACHLORIDE	2	U		2	U		2	U		2	U		2	U	
CHLOROBENZENE	2	U		2	U		2	U		2	U		2	U	
CHLOROETHANE	2	U		2	U		2	U		2	U		2	U	
CHLOROFORM	2	U		2	U		2	U		2	U		2	U	

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- k - Holding time exceeded
- p - >25%D between columns
- y - Resembles a fuel pattern but does not match the standard
- z - Unknown peaks, not a fuel pattern

TtEMI Sample ID / Units	DZB10113MW4-121605-W (UG/L)			DZB10113MWS-121605-W (UG/L)			DZB10144MW1-121505-W (UG/L)			DZB10144MW2-121505-W (UG/L)			DZB10144MW3-121505-W (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/16/05 WAB16			12/16/05 WAB16			12/15/05 WAB16			12/15/05 WAB16			12/15/05 WAB16		
Date Analyzed	12/20/05			12/20/05			12/21/05			12/21/05			12/21/05		
Analyte	Result	Val	Com												
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	2	U		2	U		2	U		2	U		0.7	J	g
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

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- h - Other problems, refer to data validation narrative
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TtEMI Sample ID / Units	IRPMW50B-121505-W (UG/L)			IRPMW50B-121505-WER (UG/L)			IRPMW52-121605-W (UG/L)			IRPMW52-121605-WER (UG/L)			TB121505 (UG/L)		
Sample Location															
Sample Depth (ft)	0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00			0.00 - 0.00		
Date Sampled / SDG Number	12/15/05 WAB16			12/15/05 WAB16			12/16/05 WAB16			12/16/05 WAB16			12/15/05 WAB16		
Date Analyzed	12/21/05			12/21/05			12/21/05			12/21/05			12/20/05		
Analyte	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
CHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
CIS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DIBROMOCHLOROPROPANE (DBCP)	2	U		2	U		2	U		2	U		2	U	
DIBROMOMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLORODIFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
DICHLOROMETHANE	2	U		2	U		2	U		2	U		2	U	
ETHYLBENZENE	2	U		2	U		2	U		2	U		2	U	
HEXACHLOROBUTADIENE	2	U		2	U		2	U		2	U		2	U	
ISOPROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
M&P-XYLENES	2	U		2	U		2	U		2	U		2	U	
METHYL TERTIARY BUTYL ETHER	2	U		2	U		2	U		2	U		2	U	
N-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
N-PROPYLBENZENE	2	U		2	U		2	U		2	U		2	U	
NAPHTHALENE	2	U		2	U		2	U		2	U		2	U	
O-XYLENE	2	U		2	U		2	U		2	U		2	U	
SEC-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
STYRENE	2	U		2	U		2	U		2	U		2	U	
TERT-BUTYLBENZENE	2	U		2	U		2	U		2	U		2	U	
TETRACHLOROETHENE (PCE)	2	U		2	U		2	U		2	U		2	U	
TOLUENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,2-DICHLOROETHENE	2	U		2	U		2	U		2	U		2	U	
TRANS-1,3-DICHLOROPROPENE	2	U		2	U		2	U		2	U		2	U	
TRICHLOROETHENE (TCE)	5.1	U		2	U		2	U		2	U		2	U	
TRICHLOROFLUOROMETHANE	2	U		2	U		2	U		2	U		2	U	
VINYL CHLORIDE	2	U		2	U		2	U		2	U		2	U	

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Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-6300 FAX (916) 862-6307

DATE 12-8-05	CHAIN OF CUSTODY NUMBER No. 7889
LABORATORY NUMBER 52224	PAGE 2 OF 2

PROJECT NAME Hawthorne GW	PROJECT MANAGER Brian Carber
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER 916-857-4501
PROJECT LOCATION Hawthorne, NV	DESTINATION LABORATORY APCL
SAMPLE(S) Rich Howell	ADDRESS 17760 Magnolia Av
SAMPLE SIGNATURE(S) Rich Howell	CITY STATE ZIP Chicago CA 91710
SITE CONTACT/ TELEPHONE NUMBER H. Milsap 775 945-7317	LABORATORY TELEPHONE NUMBER 909-590-1828

REQUESTED ANALYSES										PREP. REMARKS (H2O2, COMBUST, ETC.)
NO2 + NO3	Total Nitrogen	Explosives	Ammonium	Picrate						
X										None
	X									H2SO4
		X	X							None
X										None
X										None
	X									H2SO4
		X	X							None

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO. TYPE OF CONTAINERS	TURN AROUND TIME
HWAAPO9-120805-WEA	12/8	1440	Water	1-250ml poly	None
↓	↓		↓	1-500ml poly	
↓	↓		↓	2-12 glass	
HWAAPI0-120805-W		1630		1-250ml poly	
↓	↓		↓	1-250ml poly	
↓	↓		↓	1-500ml poly	
↓	↓		↓	2-12 glass	

5041

DAK

SHIPPED VIA:				AIRBILL #:				SPECIAL INSTRUCTIONS: 1 of 2 cooler			
RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
Rich Howell	Rich Howell/HREMI	12/8	1630	[Signature]		12/8	1630	[Signature]	Jason Nario	12/8/05	0000

DISTRIB: WHITE = LABORATORY YELLOW = PROJECT MANAGER FILE





Tetra Tech EM Inc.

CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8387

DATE 12/7/05 CHAIN OF CUSTODY NUMBER No. 7179  
LABORATORY NUMBER 57774 PAGE 1 OF 1

PROJECT NAME HWAAD PROJECT MANAGER BRIAN CARRER  
PROJECT NUMBER (61053) 40117704 TELEPHONE NUMBER (916) 853-4501  
PROJECT LOCATION HAWTHORNE, NV DESTINATION LABORATORY HPCL  
SAMPLER(S) L. I-30 ADDRESS 13760 MAGNOLIA AVE  
SAMPLER SIGNATURE(S) L.I. CITY CHINO STATE CA ZIP 91710  
SITE CONTACT/ TELEPHONE NUMBER H. MILSAP (775) 745 7317 LABORATORY TELEPHONE NUMBER (909) 590-1828

REQUESTED ANALYSES

	NO <sub>3</sub> +NO <sub>2</sub> (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICTATE (8330M)	REMARKS (NAB, COMPOSITE, ETC.)
IRPMW26-120705-W		X	X		
↓		X			
IRPMW27-120705-W			X	X	
↓		X			
IRPMW25-120705-W			X	X	
↓		X			
TEMP BLANK	X				

5022

SHIPPED VIA: FED EX AIRBILL #: \_\_\_\_\_ SPECIAL INSTRUCTIONS: \_\_\_\_\_

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<u>A. McDaniel</u>	<u>A. McDaniel / TTE</u>	<u>12/7/05</u>	<u>1345</u>	<u>[Signature]</u>	<u>COUPLER TO FED EX</u>	<u>12/20/05</u>	<u>1000</u>

RECEIVED AT LAB BY (PRINT AND SIGN): \_\_\_\_\_



Tetra Tech EM Inc.

CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 1,  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8377

DATE	12/7/05	CLAIM NO. (OPTIONAL)	No. 181
LABORATORY NUMBER	52224	PAGE	1 OF 1

PROJECT NAME	HWAD	PROJECT MANAGER	BRIAN GARBER
PROJECT NUMBER	G1058640117704	TELEPHONE NUMBER	(916) 853-4501
PROJECT LOCATION	HAWTHORNE, NV	DESTINATION LABORATORY	APCL
SAMPLE(S)	L. IZED	ADDRESS	13760 MAGNOLIA AVE
SAMPLE IDENTIFICATION	L. IZED	CITY STATE ZIP	CHINO CA 91710
SITE CONTACT/TELEPHONE NUMBER	H. MILSAP (775) 945-7377	LABORATORY TELEPHONE NUMBER	(909) 590-1828

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO./TYPE OF CONTAINERS	TURN AROUND TIME	REQUESTED ANALYSES						REMARKS (NIRAS, COMPOSITE, ETC.)	
						NO <sub>3</sub> HNO <sub>3</sub> (300.1)	POTASSIUM PEROXIDE (351.1)	EXPLOSIVES (8330)	AMMONIUM PICTRATE (8330H)				
IRPMW24-120705-W	12/7/05	1335	WATER	2-1L Amber	NORMAL			X	X				
↓	↓	↓		1-500 ml poly			X						
↓	↓	↓		1-250 ml poly		X							
IRPMW24-120705-WER	12/7/05	1415		2-1L Amber				X	X				
↓	↓	↓		1-500 ml poly			X						
↓	↓	↓		1-250 ml poly		X							
IRPMW28-120705-W	12/7/05	1520		2-1L Amber				X	X				
↓	↓	↓		1-500 ml poly			X						
↓	↓	↓		1-250 ml poly		X							
TEMP BLANK	-	-	-	-	-								

5022

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS:

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDaniel</i>	A McDaniel / TTECH	12/7/05	1610	<i>[Signature]</i>	J. Nani's	12/8/05	1600

DISTRIBUTION: WHITE = LABORATORY YELLOW = PROJECT MANAGER PINK = FILE





**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY RECORD**

10678 White Rock Road, Suite 11  
 Rancho Cordova, CA 95670  
 (916) 862-8300 FAX (916) 862-8387

DATE 12-7-05	CHAIN OF CUSTODY No 737
LABORATORY NUMBER 52224	PAGE 2 OF 2

PROJECT NAME Hawthorne GW	PROJECT MANAGER Brian Barber
PROJECT NUMBER E1058640117704	TELEPHONE NUMBER 916-853-4501
PROJECT LOCATION Hawthorne, NV	DESTINATION LABORATORY APCL
SAMPLE(S) Rich Howell	ADDRESS 13760 Magnolia Ave
SAMPLE SIGNATURE(S) Rich Howell	CITY STATE ZIP Chico CA 91710
SITE CONTACT/TELEPHONE NUMBER H. Milson 775-845-7317	LABORATORY TELEPHONE NUMBER 909-590-1828

REQUESTED ANALYSES										REMARKS (CONT, COMMENTS, ETC.)	
NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10		
Total Nitrogen 300.1										pres. None	
Explosives 351.1											
Ammonium 8370											
Nitrate 8330M											

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPER OF CONTAINERS	TURN AROUND TIME
HWAAP18-120705-W	12/7	1135	water	2-12g/455	None
HWAAP17-120705-W		1245		1-250ml poly	
				1-500ml poly	
				2-12g/455	
HWAAP15-120705-W		1445		1-250ml poly	
				1-500ml poly	
				2-12g/455	
HWAAP15-120705-WER		1455		1-250ml poly	
				1-500ml poly	
				2-12g/455	
temp blank				-	

**5022**

SHIPPED VIA: AIRBILL #:				SPECIAL INSTRUCTIONS: 1 of 2 copies			
RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
Rich Howell	Rich Howell/Speci	12/7	1630	Goumpf		12/7	1630
				J. Nario		12/8	1000
				RECEIVED AT LAH BY (PRINT AND SIGN):			

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Tetra Tech EM Inc.

CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 10,  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8387

DATE 12-9-05	CHAIN OF CUSTODY N° 738
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME Hawthorne Gw	PROJECT MANAGER Brian Garber
PROJECT NUMBER E1058640117704	TELEPHONE NUMBER 916-857-4501
PROJECT LOCATION Hawthorne, NV	DESTINATION LABORATORY APCL
SAMPLE(S) Rich Howell	ADDRESS 13760 Magnolia Ave
SAMPLE SIGNATURE(S) Phil Howell	CITY STATE ZIP China CA 91710
SITE CONTACT/ TELEPHONE NUMBER H. Milgard 772 945-7317	LABORATORY TELEPHONE NUMBER 909-590-1828

REQUESTED ANALYSES										REMARKS (LEGAL, COMMENTS, ETC.)	
DATE	TIME	MATRIX TYPE	NO/TYPE OF CONTAINERS	TURN AROUND TIME	1	2	3	4	5		
					X						HeL
					X						HeL
					X						MS/MSD
					X						HeL
					X						HeL
					X						HeL

VOCs 82600

5052

NEW

SHIPPED VIA:				SPECIAL INSTRUCTIONS:			
AIRBILL #:							
RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
Phil Howell	Rich Howell/PTCm	12/9	1630	Conner		12/9	1630
				RECEIVED AT LAB BY (PRINT AND SIGN)			
				Krissy Chan	12/16/05 1000		

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Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-6308 FAX (916) 862-6307

DATE 11/29/05	CHAIN OF CUSTODY NUMBER No. 7724
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER 916 853 4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) LPI / AM	ADDRESS 13700 MAGNOLIA AVE
SAMPLE(S) INITIALS A. McDaniel	CITY STATE ZIP CHINO CA 91710
SITE CONTACT / TELEPHONE NUMBER H. Mikap 775 945-7317	LABORATORY TELEPHONE NUMBER ERIC W. 909 590 1828

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPE OF CONTAINERS	TURN AROUND TIME	REQUESTED ANALYSES								REMARKS (IRAB, COMPOSITE, ETC.)		
						NO <sub>3</sub> & NO <sub>2</sub> 300.1	TOTAL NITROGEN 351.1	EXPLOSIVES 8330	Ammonium Picrate 8330M							
IRPMW01-112905-W	11/29	1020	WATER	2 - 1L Amber	Normal			X	X							
"	"	"	"	1 - 500ml Poly		X	X									
IRPMW02-112905-W	11/29	1220		2 - 1L Amber				X	X							
"	"	"		1 - 500ml poly		X	X									
IRPMW04-112905-W	11/29	1355		2 - 1L Amber				X	X							
"	"	"	✓	1 - 500ml poly	✓	X	X									
TEMP BLANK	11/29	-	WATER	1 - 40ml	-											

4901

SHIPPED VIA: **FED EX** AIRBILL #: **952770524679**

SPECIAL INSTRUCTIONS:

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDaniel</i>	A. McDaniel / TTECH	11/29/05	1630	<i>GOURRIER TO</i>	FED EX		
				<i>Jason Nario</i>	Jason Nario	11/30/05	0945

RECEIVED AT LAB BY (PRINT AND SIGN):





Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
 Rancho Cordova, CA 95670  
 (916) 852-8308 FAX (916) 852-8387

DATE 11/30/05	CHAIN OF CUSTODY NUMBER No. 7727
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HAWD	PROJECT MANAGER BLIAN GARBER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER 916 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLER(S) A McDaniel / L. Izzo	ADDRESS 13710 MAGNOLIA AVE
SAMPLER SIGNATURE(S) A McDaniel / L Izzo	CITY STATE ZIP CHICO, CA 91710
SITE CONTACT/TELEPHONE NUMBER H. Mikrop 775 745-7317	LABORATORY TELEPHONE NUMBER 909 590 1428

## REQUESTED ANALYSES

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPER OF CONTAINERS	TURN AROUND TIME	REQUESTED ANALYSES				REMARKS (S:RAD, COMPOSITE, ETC.)	
						NO3 & NO2 (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICRATE (8330H)		
IRPMW06-113005-W	11/30/05	0740	WATER	2-1L Amber	Normal			X	X		
↓	↓	↓		1-500ml poly		X	X				
IRPMW09-113005-W	11/30/05	0915		2-1L Amber				X	X		
↓	↓	↓		1-500ml poly		X	X				4924
IRPMW10-113005-W	11/30/05	1035		2-1L Amber				X	X		
↓	↓	↓		1-500ml poly		X	X				
TEMP BLANK	-	-	-	-	-	X	X				

SHIPPED VIA: **FED EX** AIRBILL #: 2527 7052 4690

### SPECIAL INSTRUCTIONS:

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDaniel</i>	A. McDaniel / TTEML	11/30/05	1615	<i>[Signature]</i>	COURIER TO FED EX		
				<i>[Signature]</i>	Jason Nario	12/1/05	1230

RECEIVED AT LAB BY (PRINT AND SIGN):

DISTRIB

WHITE = LABORATORY

YELLOW = PROJECT MANAGER

P. LE





Tetra Tech EM Inc.

CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 852-8308 FAX (916) 852-8387

DATE 12/1/05	CHAIN OF CUSTODY NUMBER No. 7729
LABORATORY NUMBER 52224	PAGE 2 OF 2

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER (916) 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLER(S) A. McDaniel / L. IZZO	ADDRESS 13760 MAGNOLIA AVE
SAMPLER SIGNATURE(S) A. McDaniel / L. IZZO	CITY STATE ZIP CHINO, CA 91710
SITE CONTACT / TELEPHONE NUMBER H. MILSAP 775 945 7317	LABORATORY TELEPHONE NUMBER ERIL W. 909 590 1828

REQUESTED ANALYSES

VOX (83200B)  
NO<sub>2</sub>+NO (300.1)  
TOTAL-NITROGEN (351.1)  
EXPLOSIVES (8330)  
AMMONIUM (PICKUP) (8330M)

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPE OF CONTAINERS	TURN AROUND TIME	VOX (83200B)	NO <sub>2</sub> +NO (300.1)	TOTAL-NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM (PICKUP) (8330M)	REMARKS (IRAB, COMPOSITE, ETC.)
TB112905	11/28/05	0900	WATER	3-40ml VOA	NORMAL	X					
HWAAPI0-120105-W	12/1/05	1000		3-40ml VOA		X					
IRPMW14A-120105-W	12/1/05	1305		3-40ml VOA		X					
IRPMW14B-120105-W	12/1/05	1320		3-40ml VOA		X					
IRPMW15-120105-WER	12/1/05	1410		3-40ml VOA		X					
HWAAPI09-120105-W	12/1/05	1145	✓	3-40ml VOA	✓	X					
IRPMW15-120105-WER	12/1/05	1410		2-1L Amber							
↓			✓	1-500ml poly	✓				X	X	
TEMP BLANK	-	-	-	-	-	X	X				

4986

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_ SPECIAL INSTRUCTIONS: \_\_\_\_\_

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDaniel</i>	A. McDaniel / TETRA TECH	12/1/05	1450	<i>[Signature]</i>	Jason Nario	12/1/05	0930

RECEIVED AT LAB BY (PRINT AND SIGN): \_\_\_\_\_

DISTRIBU WHITE = LABORATORY YELLOW = PROJECT MANAGER PL. E





Tetra Tech EM Inc.

CHAIN OF CUSTODY RECORD

10678 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8308 FAX (916) 862-8387

DATE 11/29/05	CHAIN OF CUSTODY NUMBER No. 7725
LABORATORY NUMBER 52224	PAGE 1 OF 2

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBNER
PROJECT NUMBER G058640117704	TELEPHONE NUMBER 916 853-4501
PROJECT LOCATION Hawthorne, NV	DESTINATION LABORATORY APCL
SAMPLE(S) LPI / ASM	ADDRESS 13760 MAGNOLIA AVE
SAMPLE SIGNATURE(S) A. McDaniel	CITY STATE ZIP CHINO CA 91710
SITE CONTACT TELEPHONE NUMBER H. MILSAP 975 945-7317	LABORATORY TELEPHONE NUMBER ERIC W. 909 510 1828

REQUESTED ANALYSES										REMARKS (GCMS, COMPOSITE, ETC.)
DATE	TIME	MATRIX TYPE	NO/TYPE OF CONTAINERS	TURN AROUND TIME	1	2	3	4	5	
11/29	1020	WATER	3-40ml VOA	Normal	X					
11/29	1220		3-40ml VOA		X					
11/29	1355		3-40ml VOA		X					
11/29	1430		3-40ml VOA		X					
11/29	1515		3-40ml VOA		X					
11/30	0740		3-40ml VOA		X					
11/30	0915		3-40ml VOA		X					
11/30	1035		3-40ml VOA		X					
11/30	1235		3-40ml VOA		X					
11/30	1405		3-40ml VOA		X					
11/30	1430	✓	3-40ml VOA	✓	X					

VOA 8260B

4986

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS:

RECEIVED BY (SIGNATURE) [Signature]	PRINT NAME/COMPANY JASON NARDI	DATE 12/1/05	TIME 0920
--	-----------------------------------	-----------------	--------------

RECEIVED AT LAB BY (PRINT AND SIGN):

RELINQUISHED BY (SIGNATURE) A. McDaniel	PRINT NAME/COMPANY A. McDaniel / TETRA	DATE 12/1/05	TIME 1450
--	---	-----------------	--------------



**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY**

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-6300 FAX (916) 862-6307

**RECORD**

DATE 12/2/05	CHAIN OF CUSTODY NUMBER No. 7732
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME AWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G058640117704	TELEPHONE NUMBER (916) 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLER(S) A. McDaniel / L. Izzo	ADDRESS 13760 MAGNELIA AVE
SAMPLER SIGNATURE(S) A. McDaniel / L. Izzo	CITY STATE ZIP CHINO, CA 91710
SITE CONTACT/ TELEPHONE NUMBER H. MILSAP 775 945 7317	LABORATORY TELEPHONE NUMBER (909) 590-1828

**REQUESTED ANALYSES**

VOC (8260B)  
NO<sub>2</sub>+NO<sub>x</sub> (300.1)  
SEM-NITROGEN (351.1)  
EXPLOSIVES (8330)  
AMMONIUM PICTRATE (8330A)

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO. TYPE OF CONTAINERS	TURN AROUND TIME											REMARKS (GRAB, COMPOSITE, ETC.)
TB20205	12/2/05	0700	WATER	2-40ml VOA	NORMAL	X										
IRPMW5-120205-W	12/2/05	0955		3-40ml VOA		X										
IRPMW67-120205-W	12/2/05	0945		3-40ml VOA		X										
IRPMW68A-120205-W	12/2/05	1125		3-40ml VOA		X										
IRPMW17-120205-W	12/2/05	1335		3-40ml VOA		X										
				2-1L Amber					X	X						
				1-500ml poly				X								
				1-1L poly			X									
IRPMW16-120205-W	12/2/05	1410		3-40ml VOA		X										
				2-1L Amber					X	X						
				1-500 poly				X								
				1-1L Amber			X									

**4965**

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_ SPECIAL INSTRUCTIONS: **TEMP BLANK INCLUDED**

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
A. McDaniel	A. McDaniel / TTEMI	12/2/05	1500	[Signature]	Jason Nario	12/3/05	0930

RECEIVED AT LAB BY (PRINT AND SIGN):



Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8387

DATE 12-5-05	CHAIN OF CUSTODY NUMBER No. 7163
LABORATORY NUMBER 52224	PAGE 1 OF 2

PROJECT NAME Howthorn SW	PROJECT MANAGER Brian Barber
PROJECT NUMBER 61558640117704	TELEPHONE NUMBER 916-553-4501
PROJECT LOCATION Howthorn, NV	DESTINATION LABORATORY APCL
SAMPLE(S) Rich Howell	ADDRESS 13760 Magyrola Ave
SAMPLE SIGNATURE(S) Rich Howell	CITY STATE ZIP China CA 91710
SITE CONTACT/TELEPHONE NUMBER H. Mills 775 945-7317	LABORATORY TELEPHONE NUMBER 909-590-1528

REQUESTED ANALYSES										REMARKS (SOL, COMMENTS, ETC.)	
NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10		
NO. 1 NO. 2 NO. 3 NO. 4 NO. 5 NO. 6 NO. 7 NO. 8 NO. 9 NO. 10 Total Nitrogen 200.1 Explosives 201.1 Ammonium Sulfate Nitrom											
											None
											H2SO4
											None
											None
											H2SO4
											None
											None
											H2SO4
											None
											None
											H2SO4

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO. TYPE OF CONTAINERS	TURN AROUND TIME
IAPAW30-120505-W	12/5	0900	water	1-12 poly	NO. 1
↓		↓		1-500ml poly	
				2-12 glass	
IAPAW31-120505-W		1100		1-12 poly	
↓		↓		1-500ml poly	
				2-12 glass	
IAPAW32-120505-W		1430		1-250ml poly	
↓		↓		1-500ml poly	
				2-12 glass	
IAPAW32-120505-WEA		1445		1-250ml poly	
↓		↓		1-500ml poly	

4988

SHIPPED VIA:				AIRBILL #:				SPECIAL INSTRUCTIONS:							
RELINQUISHED BY (SIGNATURE)		PRINT NAME/COMPANY		DATE		TIME		RECEIVED BY (SIGNATURE)		PRINT NAME/COMPANY		DATE		TIME	
Rich Howell		Rich Howell/TTCMI		12/5		1030		G. Barber		-		12/5		1630	
								Jagon Nario				12/6/05		0940	

DISTRIBUTE: WHITE = LABORATORY YELLOW = PROJECT MANAGER PINK =





Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10678 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8307

DATE 12/5/05	CHAIN OF CUSTODY NUMBER No. 7892
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER (916) 353-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) L. TZZO, A. McDaniel	ADDRESS 13760 MAGNOLIA AVE
SAMPLE SIGNATURE(S) L. TZZO, A. McDaniel	CITY STATE ZIP CHINO CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILES AP 775 745 7317	LABORATORY TELEPHONE NUMBER 909 590 1828

REQUESTED ANALYSES										REMARKS (IRAB, COMPOSITE, ETC.)
NO <sub>3</sub> + NO <sub>2</sub> (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (351.1)	AMMONIUM NITROGEN (3330)							
		X	X							
	X									
			X	X						
	X									
			X	X						
	X									

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPER OF CONTAINERS	TURN AROUND TIME
IRPMW16-120505-W	12/5/05	0855	WATER	2-1 Amber	Normal
↓	↓	↓		1-500 ml poly	
↓	↓	↓		1-1L poly	
IRPMW18-120505-W	12/5/05	1040		2-1 Amber	
↓	↓	↓		1-500 ml poly	
↓	↓	↓		1-1L poly	
IRPMW11-120505-WER	12/5/05	1400		2-1 Amber	
↓	↓	↓		1-500 ml poly	
↓	↓	↓		1-250 ml poly	
TEMP BLANK	-	-	-	-	-

4988

SHIPPED VIA: <b>FED EX</b>				AIRBILL #: _____				SPECIAL INSTRUCTIONS:			
RELINQUISHED BY (SIGNATURE) A. McDaniel	PRINT NAME/COMPANY A. McDaniel / TTECH	DATE 12/5/05	TIME 1430	RECEIVED BY (SIGNATURE) [Signature]	PRINT NAME/COMPANY Tetra Tech	DATE 12/5/05	TIME 0940	RECEIVED BY (SIGNATURE) [Signature]	PRINT NAME/COMPANY Tetra Tech	DATE 12/6/05	TIME 0940









Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10678 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8308 FAX (916) 862-8307

DATE 12-6-05	CHAIN OF CUSTODY NUMBER No. 7722
LABORATORY NUMBER 52224	PAGE 1 OF 2

PROJECT NAME Hawthorne SW	PROJECT MANAGER Brian Garber
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER 916-853-4501
PROJECT LOCATION Hawthorne, NV	DESTINATION LABORATORY APCL
SAMPLE(S) Nick Howell	ADDRESS 13760 Magnolia Ave
SAMPLE SIGNATURE(S) Nick Howell	CITY STATE ZIP Chino CA 91710
SITE CONTACT/TELEPHONE NUMBER H. Nilsen 775-743-7317	LABORATORY TELEPHONE NUMBER Chino CA 91710

## REQUESTED ANALYSES

REQUESTED ANALYSES										
<i>NO3, NO2, Total Nitrogen, Explosives, Ammonium Picrate, 8230, 8220 M</i>										
pres. REMARKS (USEAL, COMPOSITE, ETC.)										
IAPMW33-120605-W	12/6	0910	Water	1-250ml poly	Norm	X				None
				1-500ml poly			X			H2SO4
				2-12g/955				X	X	None
IAPMW34-120605-W	12/6	0915		1-250ml poly		X				None
				1-500ml poly			X			H2SO4
				2-12g/955				X	X	None
IAPMW35-120605-W	12/6	1110		1-250ml poly		X				None
				1-500ml poly			X			H2SO4
				2-12g/955				X	X	None
IAPMW36-120605-W	12/6	1355		1-250ml poly		X				None
				1-500ml poly			X			H2SO4

**5004**

SHIPPED VIA: AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS: *2 of 2 receipts*

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>Nick Howell</i>	Nick Howell/Tetra	12/6	1630

RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>Garner</i>		12/6	1630
<i>J. Nario</i>		12/6	1600

RECEIVED AT LAB BY (PRINT AND SIGN):





Tetra Tech EM Inc.

# CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8308 FAX (916) 862-8387

DATE 12/6/05	CHAIN OF CUSTODY NUMBER No. 7177
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARRER
PROJECT NUMBER G1057640117904	TELEPHONE NUMBER (916) 853 4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APLL
SAMPLER(S) A. McDaniel, L. Izzo	ADDRESS 13760 MAGNOLIA AVE
SAMPLER SIGNATURE(S) A. McDaniel, L. Izzo	CITY STATE ZIP CHINO CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILSAP (775) 945 7317	LABORATORY TELEPHONE NUMBER (909) 590 1828

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO./TYPE OF CONTAINERS	TURN AROUND TIME	REQUESTED ANALYSES										REMARKS (H:RAD, COMPOSITE, ETC.)						
						NO3 AND2 (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICTRATE (8330M)													
IRPMW1-120605-W	12/6/05	0950	WATER	2-1L Amber	NORMAL			X	X													
↓	↓	↓		1-500ml poly		X																
↓	↓	↓		1-250ml poly			X															
IRPMW2A-120605-W	12/6/05	1040		2-1L Amber				X	X													
↓	↓	↓		1-500ml poly		X																
↓	↓	↓		1-250ml poly			X															
IRPMW12B-120605-W	12/6/05	1100		2-1L Amber				X	X													
↓	↓	↓		1-500ml poly		X																
↓	↓	↓		1-250ml poly			X															
TEMP BLANK	-	-	-	-	-																	

5004

SHIPPED VIA: <b>FED EX</b>				AIRBILL #: _____				SPECIAL INSTRUCTIONS:			
RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME				
<i>A. McDaniel</i>	A. McDaniel / TETRA	12/6/05	1430	<i>[Signature]</i>	J. Nario	12/6/05	1200	RECEIVED AT LAB BY (PRINT AND SIGN)			



**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY**

10870 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 852-5308 FAX (916) 852-5387

**RECORD**

DATE 12/6/05	CHAIN OF CUSTODY NO. No. 7178
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARRER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER 916 853 4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) A. McDaniel, L. Izzo	ADDRESS 13760 MAGANOLA AVE
SAMPLE(S) LOCATION(S) A. McDaniel, L. Izzo	CITY STATE ZIP CHINO CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILSAP 775 945 7317	LABORATORY TELEPHONE NUMBER 909 590 1828

**REQUESTED ANALYSES**

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPE OF CONTAINERS	TURN AROUND TIME	NO <sub>3</sub> +NO <sub>2</sub> (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICRATE (8330.4)	REMARKS (IRAB, COMPOSITE, ETC.)
IRPHW13-120605-W	12/6/05	1250	WATER	2-1L Amber	NORMAL		X	X		
↓	↓	↓		1-500ml poly		X				
↓	↓	↓		1-250ml poly			X			
IRPHW18-120605-W	12/6/05			2-1L Amber				X	X	
↓	↓	↓		1-500ml poly		X				
↓	↓	↓		1-250ml poly			X			
IRPHW18-120605-WER	1505	1465		2-1L Amber				X	X	
↓	↓	↓		1-500ml poly		X				
↓	↓	↓		1-250ml poly			X			
TEMP BLANK	-	-	-	-	-					

**5004**

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS: \_\_\_\_\_

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDaniel</i>	A. McDaniel / TETRA	12/6/05	1538	<i>[Signature]</i>	J. Norris	12/6/05	1600

RECEIVED AT LAH BY (PRINT AND SIGN): \_\_\_\_\_

DISTRIBUTION: WHITE = LABORATORY    YELLOW = PROJECT MANAGER    PINK = FILE



**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY RECORD**

10678 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 852-8300 FAX (916) 852-8307

DATE 12/13/05	CHAIN OF CUSTODY NUMBER No. 7741
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G053640117704	TELEPHONE NUMBER 916 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLER(S) A. McDaniel, D. Kennedy	ADDRESS 13760 MAGNOLIA AVE
SAMPLER SIGNATURE(S) A. McDaniel	CITY STATE ZIP CHINO CA 91710
SITE CONTACT/ TELEPHONE NUMBER H. MILSAP 775 945-787	LABORATORY TELEPHONE NUMBER 909 590 1828

**REQUESTED ANALYSES**

NO<sub>3</sub>+NO<sub>2</sub> (300.1)  
 TOTAL NITROGEN (351.1)  
 EXPLOSIVES (8330)  
 AMMONIUM NITRATE (83304)

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPE OF CONTAINERS	TURN AROUND TIME												REMARKS (SAB, COMMENTS, ETC.)
IRPMW15-121305-W	12/13/05	0736	WATER	1-250 ml poly	NORMAL	X											
IRPMW14A-121305-W	12/13/05	0855		1-250 ml poly		X											
IRPMW14B-121305-W	12/13/05	0900		1-250 ml poly		X											
IRPMW13A-121305-W	12/13/05	1025		1-250 ml poly		X											
IRPMW07-121305-W	12/13/05	1125		1-250 ml poly		X											
IRPMW14-121305-W	12/13/05	1308		2-1 Amber				X	X								
↓	↓	↓		1-500 ml poly			X										
↓	↓	↓		1-250 ml poly		X											
IRPMW14-121305-WER	12/13/05	1340		2-1 Amber				X	X								
↓	↓	↓		1-500 ml poly			X										
↓	↓	↓	✓	1-250 ml poly	✓	X											

**5092**

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_ SPECIAL INSTRUCTIONS: **42hr hold time - extract ASAP**

RELINQUISHED BY (SIGNATURE)	PRINT NAME/ COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/ COMPANY	DATE	TIME
A. McDaniel	A. McDaniel / TTEMI	12/13/05	1430	CARRIER TO	FED EX		
					Jason Nard	12/14/05	1600





Tetra Tech EM Inc.

CHAIN OF CUSTODY RECORD

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 852-8300 FAX (916) 852-8387

DATE 12/14/05	CHAIN OF CUSTODY NUMBER No. 7745
LABORATORY NUMBER 52224	PAGE 2 OF 2

PROJECT NAME HWAD	PROJECT MANAGER BLIAN GABER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER (916) 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) A. McDaniel, D. Kennedy	ADDRESS 13760 MAGNOLIA AVE
SAMPLE(S) SIGNATURE(S) A. McDaniel	CITY STATE ZIP CHINO, CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILSAP (775) 945 7317	LABORATORY TELEPHONE NUMBER (909) 590 1828

REQUESTED ANALYSES						REMARKS (IRAB, COMPOSITE, ETC.)
NO <sub>3</sub> +NO <sub>2</sub> (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICTRATE (8330H)	VEL (8260B)		
		X	X			
	X					
			X			
	X					
				X		

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPER OF CONTAINERS	TURN AROUND TIME
IRPMW20-121405-W	12/14/05	1317	WATER	2-12 Amber	NORMAL
↓				1-500ml poly	
↓				1-250ml poly	
↓				3-40 ml VOA	
IRPMW20-121405-WER	12/14/05	1400		2-12 Amber	
↓				1-500ml poly	
↓				1-250ml poly	
↓				3-40 ml VOA	

5112

SHIPPED VIA: <b>FED EX</b>				AIRBILL #:				SPECIAL INSTRUCTIONS: <b>TRIP BLANK INCLUDED</b>			
RELINQUISHED BY (SIGNATURE) A. McDaniel	PRINT NAME/COMPANY A. McDaniel / TTEPE	DATE 12/14/05	TIME 1430	RECEIVED BY (SIGNATURE) [Signature]	PRINT NAME/COMPANY J. Nario	DATE 12/15/05	TIME 1000	RECEIVED AT LAB BY (PRINT AND SIGN):			



Tetra Tech EM Inc.

**CHAIN OF CUSTODY**

10678 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8307

CORD

DATE 12/14/05	CHAIN OF CUSTODY NUMBER No. 7742
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARDER
PROJECT NUMBER G058640117704	TELEPHONE NUMBER (916) 853-2501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) A. McDaniel, D. Kennedy	ADDRESS 13760 MAGNOLIA AVE
SAMPLE SIGNATURE(S) A. McDaniel	CITY STATE ZIP CHINO CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILKAP 775 945 7317	LABORATORY TELEPHONE NUMBER (909) 590-1828

**REQUESTED ANALYSES**

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO./TYPE OF CONTAINERS	TURN AROUND TIME	NO <sub>3</sub> +NO <sub>2</sub> (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICTRATE (8330H)	REMARKS (LAB, COMMENTS, ETC.)
IRPMW12-121405-W	12/14/05	0805	WATER	2-1 L Amber	NORMAL			X	X	
↓	↓	↓		1-500ml poly		X				
				1-250ml poly			X			
IRPMW13-121405-W	12/14/05	0945		2-1 L Amber				X	X	
↓	↓	↓		1-500ml poly		X				
				1-250ml poly			X			
IRPMW18-121405-W	12/14/05	1200		2-1 L Amber				X	X	
↓	↓	↓		1-500ml poly		X				
				1-250ml poly	✓		X			

**5112**

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS: \_\_\_\_\_

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDaniel</i>	A. McDaniel / TTECH	12/14/05	1420	CARRIER TO FED EX			
				<i>J. Nario</i>	J. Nario	12/15/05	1800

RECEIVED AT LAB BY (PRINT AND SIGN): \_\_\_\_\_

DISTRIBUTION: WHITE = LABORATORY    YELLOW = PROJECT MANAGER    PINK = FILE



**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY RECORD**

10870 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 862-8300 FAX (916) 862-8307

DATE	CHAIN OF CUSTODY NUMBER
LABORATORY NUMBER	No. 7743
5774	PAGE 1 OF 1

PROJECT NAME <b>HWAD</b>	PROJECT MANAGER <b>BRIAN GABER</b>
PROJECT NUMBER <b>61058640117704</b>	TELEPHONE NUMBER <b>(916) 853-4501</b>
PROJECT LOCATION <b>HAWTHORNE, NV</b>	DESTINATION LABORATORY <b>APCL</b>
SAMPLER(S) <b>A. McDaniel, D. Kennedy</b>	ADDRESS <b>13760 MAGNOLIA AVE</b>
SAMPLER IDENTIFICATION <b>A. McDaniel</b>	CITY STATE ZIP <b>CHINO CA 91710</b>
SITE CONTACT/TELEPHONE NUMBER <b>H. MILSAP (775) 945-7317</b>	LABORATORY TELEPHONE NUMBER <b>(909) 590-1828</b>

REQUESTED ANALYSES										REMARKS (LEAD, COMPOSITE, ETC.)
NO <sub>3</sub> +NO <sub>2</sub> (300.1)	TOTAL NITROGEN (35.1)	EXPLOSIVES (8330)	AMMONIUM PICTRATE (83304)							
		X	X							MS/MSD
	X									
		X								
<b>5112</b>										

SHIPPED VIA: <b>FED EX</b>				AIRBILL #: _____				SPECIAL INSTRUCTIONS:			
RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME	RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME				
<i>A. McDaniel</i>	A. McDaniel/ITEM	12/11/05	1200	<i>[Signature]</i>	FED EX	12/15/05	1000				
								RECEIVED AT LAB BY (PRINT AND SIGN):			









**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY RECORD**

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 852-8308 FAX (916) 852-8307

DATE 12/15/05	CHAIN OF CUSTODY NUMBER No. 7746
LABORATORY NUMBER 52224	PAGE 1 OF 2

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G10S8640117704	TELEPHONE NUMBER (916) 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) A. McDanel, D. Kennedy	ADDRESS 13760 MAGNOLIA AVE
SAMPLE SIGNATURE(S) A. McDanel	CITY STATE ZIP CHINO, CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILSAP (775) 745-7317	LABORATORY TELEPHONE NUMBER (909) 590-1828

**REQUESTED ANALYSES**

<p>5133</p> <p>VOC (8360B) EXPLOSIVES (8330) AMMONIUM PICRATE (8330H)</p>									
REMARKS (HAB, COMPOSITE, ETC.)									

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO./TYPE OF CONTAINERS	TURN AROUND TIME																																						
DZB101-44MW2-121505-W	12/15	0805	WATER	3-40ml VOA	NORMAL	X																																					
DZB101-44MW1-121505-W	12/15	1000		3-40ml VOA		X																																					
DZB101-44MW3-121505-W	12/15	1140		3-40ml VOA		X																																					
IRPMW50B-121505-W	12/15	1525		3-40ml VOA		X																																					
IRPMW50B-121505-WEX	12/15	1600		3-40ml VOA		X																																					
TB121505	12/15	0730		2-40ml VOA		X																																					
DZB101-13MW4-121605-W	12/16/05	1000		3-40ml VOA		X																																					
DZB101-13MW5-121605-W	12/16/05	1105		3-40ml VOA		X																																					
IRPMW52-121605-W	12/16/05	1305		3-40ml VOA		X																																					
IRPMW52-121605-WEX	12/16/05	1415		3-40ml VOA		X																																					
↓	12/16/05	↓	↓	2-1L Amber	↓		X	X																																			

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS:

RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>A. McDanel</i>	A. McDanel/TTE/TE	12/16/05	1430

RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
<i>[Signature]</i>	ericwendlan	12/17/05	1025

RECEIVED AT LAB BY (PRINT AND SIGN):





**Tetra Tech EM Inc.**

**CHAIN OF CUSTODY RECORD**

10670 White Rock Road, Suite 100  
Rancho Cordova, CA 95670  
(916) 852-8300 FAX (916) 852-8307

DATE 12/16/05	CHAIN OF CUSTODY NUMBER No. 7761
LABORATORY NUMBER 52224	PAGE 1 OF 1

PROJECT NAME HWAD	PROJECT MANAGER BRIAN GARBER
PROJECT NUMBER G1058640117704	TELEPHONE NUMBER 916 853-4501
PROJECT LOCATION HAWTHORNE, NV	DESTINATION LABORATORY APCL
SAMPLE(S) A. McDaniel, D. Kennedy	ADDRESS 13760 MAGNOLIA AVE
SAMPLE SIGNATURE(S) A. McDaniel	CITY STATE ZIP CHINO, CA 91710
SITE CONTACT/TELEPHONE NUMBER H. MILSAP (775) 945-7377	LABORATORY TELEPHONE NUMBER (909) 590-1828

**REQUESTED ANALYSES**

NO <sub>3</sub> +NO <sub>2</sub> (300.1)	TOTAL NITROGEN (351.1)	EXPLOSIVES (8330)	AMMONIUM PICTRATE (8330M)	<b>5133</b>										REMARKS (HAB, COMPOSITE, ETC.)	
		X	X												
	X														
			X	X											
		X													
			X	X											
	X	X													

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX TYPE	NO/TYPER OF CONTAINERS	TURN AROUND TIME
DZB101-13MW4-121605-W	12/16/05	1000	WATER	2-1L Amber	NORMAL
↓	↓	↓	↓	1-500ml poly	↓
↓	↓	↓	↓	1-250ml poly	↓
DZB101-13MW5-121615-W	12/16/05	1105		2-1L Amber	
↓	↓	↓	↓	1-500ml poly	↓
↓	↓	↓	↓	1-250ml poly	↓
IRPMW52-121605-W	12/16/05	1305		2-1L Amber	
↓	↓	↓	↓	1-500ml poly	↓
↓	↓	↓	↓	1-250ml poly	↓
TEMP BLANK	—	—	—	—	—

SHIPPED VIA: **FED EX** AIRBILL #: \_\_\_\_\_

SPECIAL INSTRUCTIONS:

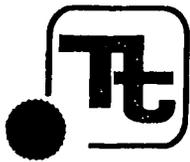
RELINQUISHED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
A. McDaniel	A. McDaniel / APCL	12/16/05	1400

RECEIVED BY (SIGNATURE)	PRINT NAME/COMPANY	DATE	TIME
	ERIC Wandland	12/17/05	1020

RECEIVED AT LAH BY (PRINT AND SIGN):

**APPENDIX E**

**WASTE ACCEPTANCE DOCUMENTATION**



TETRA TECH EM INC.

1/18/06

Mr. Duane Balch  
U. S. Army Corps of Engineers, Sacramento District  
1325 J Street  
Sacramento, California 95814-2922

Subject: **2005 Groundwater Monitoring IDW  
Hawthorne Army Depot.**

Mr. Balch,

As part of the Hawthorne Army Depot (HWAD), installation restoration program (IRP) annual groundwater monitoring, Tetra Tech EM Inc. (TtEMI), between November 28 and December 16, 2005, sampled 70 groundwater monitoring wells. The sampling protocol included using a low flow/low purge technique which limited the amount of investigative derived waste (IDW) to approximately 165 gallons of water or an average of 2.3 gallons of water per well. During sampling the water pumped from each well was discharged from the pump directly into a NMFC equivalent rated 5-gallon plastic bucket. Each bucket was then sealed, labeled with the well number and at the end of each day placed into Building 108-3.

A review of analytical results from the previous 8 years of groundwater sampling indicated that IDW collected during the 2005 annual groundwater sampling had a high likelihood of being transported and disposed/destroyed/treated as a non hazardous waste. Observations of steel 55-gallon barrels located near monitoring wells which were presumably left from previous sampling events, indicated that waste containers are prone to blow over and roll away from the wells during periods of high wind. Based on the above observations, the field crew made the decision to utilize a smaller container, keep the water segregated by well and to secure the water by placing it inside Building 108-3 until characterization was complete and disposal options could be arranged. EPA guidance has specifically indicated that IDW may be assumed not to be "listed" waste under RCRA unless available information about the site suggests otherwise (53 F.R. 51444, December 21, 1988).

Building 108-3 is currently an unused former munitions facility. The doors are lockable and the keys are controlled by the HWAD Environmental office. The field crew placed the buckets on the concrete floor of the facility and locked the doors as they exited.

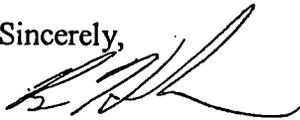
The attached table summarizes the results of the groundwater monitoring. The table presents the concentrations of analytes detected at or above the method detection limit

(MDL). The analytical results were submitted on January 12, 2006 to U.S. Army Corps of Engineers (USACE), HWAD and Phillip Services Corporation (PSC) a waste disposal company. Based on the analytical results, PSC determined that the water could be transported and disposed of as a non-hazardous waste.

On January 17, 2006, 42 days after the first well was sampled, PSC consolidated the water into four 55-gallon polyethylene drums, took possession of the water and transported it as a non hazardous waste to the PSC temporary storage and disposal facility (TSDF) in Fernley Nevada. Prior to transport, water containing RDX was segregated into a separate drum and has been slated for incineration; water containing chlorinated hydrocarbons will be stored at the PSC TSDF and then treated with other wastewater collected from other generators.

If you have any questions or comments, please feel free to call me at (916) 853-4501.  
For future sampling

Sincerely,



Brian Garber  
Project Manager

Copy with attachments  
Mr. Herman Milsap: Hawthorne Army Depot  
Mr. Art Gravenstein: NDEP

Summary of Groundwater Positive Analytical Results

2005 Annual Sampling Event

Well Designation	Trichloroethene (TCE) µg/L	Chloroform µg/L	Tetrachloroethene (PCE) µg/L	Bromochloromethane µg/L	Carbon Tetrachloride µg/L	1,2-Dichloroethane µg/L	Dichloromethane (Methylene Chloride) µg/L	Dibromochloromethane µg/L	Cis-1,2-Dichloroethene µg/L	RDX µg/L	Total Nitrogen mg/L	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
HWAD Action Level	5	100	5	0.18	5	5	5	0.13	70	0.61	na	58,000	37,000
BLDG70MW01											0.14J	0.19	
DZB101-13MW4													
DZB101-13MW5													
DZB101-13MW8		0.6J									0.59	0.13	
DZB101-44MW1											0.49	0.12	
DZB101-44MW2											0.22	0.12	
IF44MW3	0.7J									443	0.65	1.8	
H P09											0.65	0.032	
HWAAP10											0.19J	1.4	
HWAAP15											0.28	0.21	
HWAAP16											0.35	0.19	
HWAAP17											0.23	0.08J	
HWAAP18											0.15	0.15	
IRPMW01											0.39	2.6	
IRPMW02											0.36	59.7	
IRPMW04	0.3J		1J								0.38	0.46	
IRPMW05	1J		2J								0.34	1	
IRPMW06											0.34	0.2J	
IRPMW07											0.73	3.3	
IRPMW08A											0.85	0.15J	
IRPMW09											0.29	4	
IRPMW10											0.29	0.14J	
IRPMW11											0.44	0.51	
IRPMW12											0.13J	0.3	
IRPMW13											0.14J	0.49	
IRPMW14			0.6J								0.18J	4.8	
IRPMW15			0.6J								0.87	13.5	
IRPMW16	2		2						0.7J		0.4	2.7	
IRPMW17	0.5J		1J								0.23	8.9	
IRPMW18	0.6J		0.5J						0.4J		0.29	3.3	
IRPMW19											1.3	10.4	

## Summary of Groundwater Positive Analytical Results

### 2005 Annual Sampling Event

Well Designation	Trichloroethene (TCE) µg/L	Chloroform µg/L	Tetrachloroethene (PCE) µg/L	Bromodichloromethane µg/L	Carbon Tetrachloride µg/L	1,2-Dichloroethane µg/L	Dichloromethane (Methylene Chloride) µg/L	Dibromochloromethane µg/L	Cis-1,2-Dichloroethene µg/L	RDX µg/L	Total Nitrogen mg/L	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
HWAD Action Level	5	100	5	0.18	5	5	5	0.13	70	0.61	na	58,000	3,700
IRPMW20		0.8J	0.6J								0.11J	5.1	
IRPMW21											0.15J	14	
IRPMW22											0.21	0.2	
IRPMW23											0.76	5.6	
IRPMW24											0.71	0.1	
IRPMW25											0.15J	0.1	
IRPMW26											0.34	0.6	
IRPMW27											0.11J	1	
IRPMW28											0.13J	0.07J	
IRPMW29											0.59	0.28	
IRPMW30											0.24	0.16J	
IRPMW31		1J			0.6J						0.19J	1.8	
IRPMW32											0.32	0.12J	
IRPMW33	0.4J	1J									0.67	2.1	
IRPMW34											0.19J	0.79	
IRPMW35											0.2J	1.8	
IRPMW36											0.37	0.21	
IRPMW37	6.6										1.1	0.18	
IRPMW37A									2.4		0.37	0.19	
IRPMW38											1.8	0.17	
IRPMW39											0.97	0.17	
IRPMW40											0.96	0.86	
IRPMW41											0.15J	0.94	
IRPMW42		4.6		0.3J							0.46	1.8	
IRPMW43		3			0.5J						0.66	2.5	
IRPMW44		4		0.5J							0.41	2.8	
IRPMW45		2						0.3J			0.96	1.3	
IRPMW46		3									0.51	1.4	
IRPMW47		3		0.3J							ND	1.4	
IRPMW48		3		0.3J							0.23	1.5	
IRPMW49											0.11J	0.14	
IRPMW50	11										0.21	0.38	

## Summary of Groundwater Positive Analytical Results

2005 Annual Sampling Event

Well Designation	Trichloroethene (TCE) µg/L	Chloroform µg/L	Tetrachloroethene (PCE) µg/L	Bromodichloromethane µg/L	Carbon Tetrachloride µg/L	1,2-Dichloroethane µg/L	Dichloromethane (Methylene Chloride) µg/L	Dibromochloromethane µg/L	Cis-1,2-Dichloroethene µg/L	RDX µg/L	Total Nitrogen mg/L	Nitrate as Nitrogen mg/L	Nitrite as Nitrogen mg/L
HWAD/Action Level	5	100	5	0.18	5	5	5	0.13	70	0.61	na	58,000	3,700
IRPMW50A	232(a)	1J	0.4J			2	0.6J						
IRPMW50B	5.1										0.2J	3	
IRPMW51											1	0.2	
IRPMW52											1.8	0.15	
IRPMW56	1J												
USGS103-41MW23			0.4J							329	0.59	1.6	
USGS103-41MW25											0.3	0.57	
											0.49	0.13J	

3ol. Sample ID indicates analytes above the Active Level.

Jn-validated results.

i = Sample was diluted due to high chloride and sulfate content.

' = Reported between the MDL and

QL.

d = Not detected

\*\*\*24 HOUR EMERGENCY RESPONSE, CALL (800) 567-7455 \*\*\*

21st Century EMI  
 2095 Newlands Dr. East  
 Fernley, NV 89408  
 Phone 775/575-2777

# SHIPPING PAPER

Lading Manifest: 56571-06



SHIPPER / CUSTOMER <b>HAWTHORNE ARMY DEPOT</b>		DELIVERY DATE	JOB # <b>707855</b>
ADDRESS <b>5 SOUTH MAIN AVE.</b>		POINT OF CONTACT <b>Kevin Shannon</b>	
CITY, STATE, ZIP <b>HAWTHORNE NV 89415</b>		PHONE # <b>(775)945-7321</b>	
CARRIER / TRANSPORTER <b>21st CENTURY EMI</b>		PHONE # <b>(775)575-2760</b>	
CONSIGNEE / FACILITY <b>21st Century EMI</b>		POINT OF CONTACT	
ADDRESS <b>2095 Newlands Dr. East</b>		PHONE # <b>(775)575-2760</b>	
CITY, STATE, ZIP <b>Fernley , NV 89408</b>			

HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers		Total Quantity	UOM
		No.	Type		
A	NON REGULATED LIQUID		DF		G
B	NON REGULATED LIQUID		DF		
C					
D					

Special Handling Instruction and Additional Information:

a) 313117-01 - WELL WATER - STAB01 (1) b) 351801-00 - WELL WATER WITH RDX - INC09 (2) WEAR PROPER PROTECTIVE CLOTHING.  
 EMERGENCY RESPONSE PHONE (800) 567-7455.

Placards Provided YES \_\_\_\_\_ NO \_\_\_\_\_

Emergency Phone # (775) 575-2777

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

(SHIPPER) PRINT OR TYPE NAME	SIGNATURE	MONTH	DAY	YEAR
X	X			
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME	SIGNATURE	MONTH	DAY	
X	X			
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME	SIGNATURE	MONTH	DAY	YEAR
X	X			

CONSIGNEE

<b>Generator's Waste Profile 351881-00</b>
--

Status : PENDING

Starts : 17 JAN 2006

Sales Rep 971 Debbie Currier

Expires : 31 JAN 2007

Acct Mngr 987 Robert Pelham

**GENERATOR ( 49344 ) SITE INFORMATION****B: CUSTOMER ( 33258 ) INFORMATION**

HAWTHORNE ARMY DEPOT  
5 SOUTH MAIN AVE.

EPA EXE  
SIC 9711 N

TETRA TECH EM INC.  
10860 Gold Center Drive SUITE 200  
RANCHO CORDOVA, CA 95670

HAWTHORNE, NV 89415

&gt; Contact Kevin Shannon

Phone (775) 945-7321

**C: WASTE INFORMATION**

On File &gt; MSDS No Analysis No Sample No

Waste Name WELL WATER WITH HIGH RDX

Process SAMPLING

**D: PHYSICAL CHARACTERISTICS OF WASTE**

Phys States L-Liq Top Color CLEAR  
Mid Color  
Bot Color

Odor None  
Layers Single Phased  
Spec Grav 1.0 - 1.1

PH Range 4.1-10  
Free Liq % 100%  
Flash Test NT  
Flash Rnge No Flash

**E: CHEMICAL COMPOSITION OF WASTE**

Information Provided By Generator

WELL WATER SAMPLE - HIGH RDX ( 100 % )

PCB's NP	Cyanides NP	Phenolics NP	Sulfides NP	TOC <10%	VOC <500PPM
----------	-------------	--------------	-------------	----------	-------------

**F: METALS METHOD**

Gen Knowledge

Cadmium &lt;1

Chromium &lt;5

Silver &lt;5

Zinc

Arsenic &lt;5

Merc TCLP &lt;0.2

Selenium &lt;1

Nickel

Copper

Barium &lt;100

Lead &lt;5

Merc Tot

Thallium

Chrome-6

**G: OTHER CHARACTERISTICS OF WASTE**

Ign. Solid	No	Oxidizer	No	Explosive	No	Shock Sensitive	No	Water Reactive	No	Reactive	No
------------	----	----------	----	-----------	----	-----------------	----	----------------	----	----------	----

**A / STATE WASTE IDENTIFICATION**

Dangerous / Hazardous No

TSCA No

Universal Waste No

.m W101

Source G06

Origin 1

SubPart CC No

NESHAPS No

CERCLA No

Debris No

Waste Water No

EPA Codes

State Codes

**I: SHIPPING INFORMATION**

Marine Pollutant No

Dangerous Wet No

Inhalation Hazard No

Poison

No

Containers DF Fiber Drum.

Qty to Ship Now 1 X 55

Projected Volume

DOT Descrip NON REGULATED LIQUID

**J: SPECIAL HANDLING INFORMATION****GENERATOR CERTIFICATION**

I hereby certify, as an authorized representative of the Generator named above, that 21 EMI has been fully informed of all information known about this waste, including but not limited to, the waste's generation process, composition, and physical characteristics, necessary to identify proper treatment and disposal of waste and this information is true and accurate.

If this is an existing profile which is being renewed, I hereby certify that there have been no changes in this waste, chemical, physical, or regulatory designation since full characterization by sample testing.

Signature

Printed Name

Title

Date

Philip maintains the requisite permits and agrees to accept this waste stream, as described.

**Generator's Waste Profile 313117-01**

Status : PENDING



Starts : 11 JAN 2006  
Expires : 31 JAN 2007

Sales Rep 971 Debbie Currier  
Acct Mngr 987 Robert Pelham

**A: GENERATOR ( 49344 ) SITE INFORMATION**

**B: CUSTOMER ( 33258 ) INFORMATION**

HAWTHORNE ARMY DEPOT  
5 SOUTH MAIN AVE.  
HAWTHORNE, NV 89415  
> Contact Kevin Shannon

EPA EXE  
SIC 9711 N  
Phone (775) 945-7321

TETRA TECH EM INC.  
10860 Gold Center Drive SUITE 200  
RANCHO CORDOVA, CA 95670

**C: WASTE INFORMATION**

On File > MSDS No Analysis No Sample No

Waste Name WELL WATER  
Process SAMPLING

**D: PHYSICAL CHARACTERISTICS OF WASTE**

Phys States L-Liq Top Color CLEAR  
Mid Color  
Bot Color

Odor None  
Layers Single Phased  
Spec Grav 1.0 - 1.1

PH Range 4.1-10  
Free Liq % 100%  
Flash Test NT  
Flash Rnge No Flash

**E: CHEMICAL COMPOSITION OF WASTE**

Information Provided By Generator

WELL WATER SAMPLE ( 100 % )  
PCB's NP Cyanides NP Phenolics NP Sulfides NP TOC <10% VOC <500PPM

**F: METALS METHOD**

Gen Knowledge Cadmium <1 Chromium <5 Silver <5 Zinc  
Arsenic <5 Merc TCLP <0.2 Selenium <1 Nickel Copper  
Barium <100 Lead <5 Merc Tot Thallium Chrome-6

**G: OTHER CHARACTERISTICS OF WASTE**

Ign. Solid No Oxidizer No Explosive No Shock Sensitive No Water Reactive No Reactive No

**H: EPA / STATE WASTE IDENTIFICATION**

Dangerous / Hazardous No TSCA No Universal Waste No

Form W101 Source G06 Origin 1 SubPart CC No NESHAPS No CERCLA No Debris No Waste Water I

EPA Codes  
State Codes

**I: SHIPPING INFORMATION**

Marine Pollutant No Dangerous Wet No Inhalation Hazard No Poison No

Containers DF Fiber Drum Qty to Ship Now 1 X 55 Projected Volume  
DOT Descrip NON REGULATED LIQUID

**J: SPECIAL HANDLING INFORMATION**

**GENERATOR CERTIFICATION**

I hereby certify, as an authorized representative of the Generator named above, that 21 EMI has been fully informed of all information known about this waste, including but not limited to, the waste's generation process, composition, and physical characteristics, necessary to identify proper treatment and disposal of waste and this information is true and accurate.

If this is an existing profile which is being renewed, I hereby certify that there have been no changes in this waste, chemical, physical, or regulatory designation since full characterization by sample testing.

Signature \_\_\_\_\_ Printed Name \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Phillip maintains the requisite permits and agrees to accept this waste stream, as described.

**APPENDIX F**

**DATA VALIDATION REPORTS (2005)**

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot

Contract Task Order (CTO) No.: G1058.6.4.01.177.04

Laboratory: Applied P & Ch Laboratory

Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.

Firm/Proj. No: Laboratory Data Consultants, Inc./14575A

Review Date: January 31, 2006

Sample Delivery Group (SDG) No.: WAB01

Sample Nos.: IRPMW001-112905-W      IRPMW004-112905-W      IRPMW005-112905-WER  
                  IRPMW002-112905-W\*      IRPMW005-112905-W

\* Full Validation Sample

Matrix: Water

Collection Date(s): November 29, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW005-112905-WER.

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW002-112905\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- B. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW005-112905-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW002-112905-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.



**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample IRPMW002-112905-W\****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N and TKN were qualified nondetect in four samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

**III.** The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB01**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/14/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino,  
California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Non-CLP Inorganic and Physical Analysis**

1. Results for Ammonium as N and TKN in the following samples were qualified (Ub) as these analytes were detected in the associated equipment rinsate:

IRPMW01-112905-W  
IRPMW02-112905-W  
IRPMW04-112905-W  
IRPMW05-112905-W

(Sample results were less than 5x the maximum blank contamination)

2. Detected results for Ammonium as N and Nitrate as N in sample IRPMW05-112905-WER were qualified as estimated (Jg). These results were above the MDL but below the RL.

There were no other modifications to the validation report.

# DATA VALIDATION REPORT

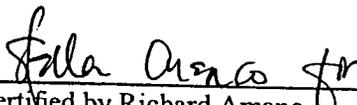
Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14575B  
Review Date: January 31 through February 1, 2006  
Sample Delivery Group (SDG) No.: WAB02  
Sample Nos.: IRPMW06-113005-W      IRPMW09-113005-W\*      USGS10341MW23113005W  
                  IRPMW07-113005-WER      IRPMW10-113005-W      USGS10341MW25113005W

\* Full Validation Sample

Matrix: Water  
Collection Date(s): November 30, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
\_\_\_\_\_  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW07-113005-WER.

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW09-113005-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- B. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW007-113005-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW09-113005-W \**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq 0.995$ .

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• Ammonium as N and TKN in samples	IRPMW06-113005-W IRPMW09-113005-W* IRPMW10-113005-W	USGS10341MW23113005W USGS10341MW25113005W
• Nitrate as N in samples	IRPMW10-113005-W	USGS10341MW25113005W

The following analytes were detected in the associated equipment rinsate at the concentrations noted below.

Analyte	Equipment Rinsate ID	Concentration
Ammonium as N	IRPMW07-113005-WER	0.48 mg/L
TKN	IRPMW07-113005-WER	0.73 mg/L
Nitrate as N	IRPMW07-113005-WER	0.029 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified. The MS/MSD analyses were performed on a non-client sample for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample IRPMW09-113005-W \****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N and TKN were qualified nondetect in five samples and Nitrate as N was qualified nondetect in two samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB02**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/14/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Non-CLP Inorganic and Physical Analysis**

1. Results for Ammonium as N and TKN in the following samples were qualified (Ub) as these analytes were detected in the associated equipment rinsate:

IRPMW06-113005-W  
IRPMW09-113005-W  
IRPMW10-113005-W  
USGS103-41MW23-113005-W  
USGS103-41MW25-113005-W

- (Sample results were less than 5x the maximum blank contamination).
2. Nondetected results for Nitrate as N in samples IRPMW10-113005-W and USGS103-41MW25-113005-W were qualified (Ub) as the analyte was detected in the associated equipment rinsate. (Sample results were less than 5x the maximum blank contamination).
  3. Detected results for Nitrate as N in samples IRPMW06-113005-W and IRPMW07-113005-WER were qualified as estimated (Jg). These results were above the MDL but below the RL.

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14575C  
Review Date: January 31 through February 1, 2006  
Sample Delivery Group (SDG) No.: WAB03  
Sample Nos.: IRPMW07-120205-W      IRPMW15-120205-W      IRPMW17-120205-W\*  
                  IRPMW08A-120205-W      IRPMW16-120205-WER      TB120205

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 2, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
\_\_\_\_\_  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits .
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. No common laboratory contaminants were found in the samples. No volatile contaminants were found in the method blanks, the equipment rinsate sample IRPMW16-120205-WER, and the trip blank sample TB120205.

#### VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05 with the exception listed below.
- C. The following continuing calibrations had percent differences (%D) of  $> 25\%$  .

<u>Calibration Date</u>	<u>Compound</u>	<u>%D</u>
12/7/05	1,2,4-Trichlorobenzene	36.37

Although the above listed percent difference demonstrates a high bias, the associated sample results were nondetected and therefore were not qualified.

#### **VII. Internal Standards**

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

#### **VIII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG

#### **IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

#### **Full Validation Criteria for Sample IRPMW17-120205-W\***

#### **X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

#### **XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

#### **XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

**XIV. System Performance**

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

- I. **Holding Times**
  - A. The 7 day analysis holding time requirement for unpreserved waters was met.
- II. **Surrogate Recovery**
  - A. The surrogate percent recoveries (%R) were within the QC limits.
- III. **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**
  - A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
- IV. **Blank Spike or Laboratory Control Sample (LCS)**
  - A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- V. **Blank Contamination**
  - A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW16-120205-WER.
- VI. **Calibrations**
  - A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
  - B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.
- VII. **Field Duplicate**
  - A. No field duplicate samples were identified in this SDG.
- VIII. **Other Qualifications**
  - A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW17-120205-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

**PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)**

**I. Holding Times**

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

**II. Surrogate Recovery**

- A. All surrogate recoveries (%R) were within the QC limits.

**III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)**

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

**IV. Blank Spike or Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**V. Blank Contamination**

- B. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW16-120205-WER.

**VI. Calibrations**

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW17-120205-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

- TKN in sample

IRPMW17-120205-W\*

The following analyte was detected in the associated equipment rinsate at the concentration noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
TKN	IRPMW16-120205-WER	0.31 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified. The MS/MSD analyses were performed on a non-client sample for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample IRPMW17-120205-W\****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the volatile, explosives, and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.

- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.

- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, TKN was qualified nondetect in one sample.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.
- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB03**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/14/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis**

1. Detected results for Tetrachloroethene in samples IRPMW15-120205-W and IRPMW17-120205-W were qualified as estimated (Jg). Also, detected result for Trichloroethene in sample IRPMW17-120205-W was qualified as estimated (Jg). These results were above the MDL but below the RL.

**Non-CLP Inorganic and Physical Analysis**

1. Results for TKN in sample IRPMW17-120205-W were qualified (Ub) as the analyte was detected in the associated equipment rinsate IRPMW16-120205-WER. (Sample results were less than 5x the maximum blank contamination).
2. Detected results for Ammonium as N and Nitrate as N in sample IRPMW16-120205-WER were qualified as estimated (Jg). These results were above the MDL but below the RL.

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot

Contract Task Order (CTO) No.: G1058.6.4.01.177.04

Laboratory: Applied P & Ch Laboratory

Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.

Firm/Proj. No: Laboratory Data Consultants, Inc./14575D

Review Date: January 31 through February 1, 2006

Sample Delivery Group (SDG) No.: WAB04

Sample Nos.: HWAAP09-120105-W      IRPMW05-112905-WER      IRPMW14B-120105-W  
HWAAP10-120105-W\*      IRPMW06-113005-W      IRPMW15-120105-WER  
IRPMW01-112905-W      IRPMW07-113005-WER      TB112905  
IRPMW02-112905-W      IRPMW09-113005-W      USGS10341MW23113005W  
IRPMW04-112905-W      IRPMW10-113005-W      USGS10341MW25113005W  
IRPMW05-112905-W      IRPMW14A-120105-W

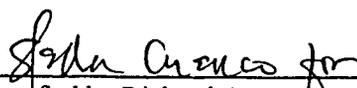
\* Full Validation Sample

Matrix: Water

Collection Date(s): November 28 through December 1, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
\_\_\_\_\_  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications

TABLE 1  
**SAMPLE CROSS REFERENCE TABLE**  
**SAMPLE DELIVERY GROUP WAB04**

Sample ID	Matrix	Date Collected	Quality Control ID	Validation Criteria*	Analyses															
					V O C  (8 2 6 0 B)	E X P L O S I V E S	P I C R I C  A C I D	A M M O N I U M	N I T R A T E	N I T R I T E	T K N									
HWAAP09-120105-W	Water	12/1/05			X	X	X	X												
HWAAP10-120105-W	Water	12/1/05		Full	X	X	X	X					X							
IRPMW01-112905-W	Water	11/29/05			X															
IRPMW02-112905-W	Water	11/29/05			X															
IRPMW04-112905-W	Water	11/29/05			X															
IRPMW05-112905-W	Water	11/29/05			X															
IRPMW05-112905-WER	Water	11/29/05	Equipment Rinsate		X															
IRPMW06-113005-W	Water	11/30/05			X															
IRPMW07-113005-WER	Water	11/30/05	Equipment Rinsate		X															
IRPMW09-113005-W	Water	11/30/05			X															
IRPMW10-113005-W	Water	11/30/05			X															
IRPMW14A-120105-W	Water	12/1/05			X	X	X	X												
IRPMW14B-120105-W	Water	12/1/05	Field Duplicate of IRPMW14A-120105-W		X	X	X	X					X							
IRPMW15-120105-WER	Water	12/1/05	Equipment Rinsate		X	X	X	X					X							
TB112905	Water	11/28/05	Trip Blank		X				X	X			X							
USGS10341MW23113005W	Water	11/30/02			X															
USGS10341MW25113005W	Water	11/30/05			X															

\* = Cursory validation performed on all samples  
 \*\* = MS/MSD/DUP performed on indicated parameters only  
 \*\*\* = Full review performed on indicated parameters only  
 TKN = Total Kjeldahl Nitrogen  
 MS/MSD = Matrix Spike/Matrix Spike Duplicate  
 DUP = Matrix duplicate

## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. No common laboratory contaminants were found in the samples. No volatile contaminants were found in the method blanks, the equipment rinsate samples IRPMW05-112905-WER, IRPMW07-113005-WER, and IRPMW10-113005-WER, and the trip blank sample TB112905.

#### VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds; the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05.

**VII. Internal Standards**

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

**VIII. Field Duplicate**

- A. No RPDs above 25% were obtained for the field duplicate samples IRPMW14A-120105-W / IRPMW14A-120105-W.

**IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

***Full Validation Criteria for Sample HWAAP10-120105-W\****

**X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

**XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

**XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

#### XIV. System Performance

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW15-120105-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW14A-120105-W / IRPMW14A-120105-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample HWAAP10-120105-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- B. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW15-120105-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW14A-120105-W / IRPMW14A-120105-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample HWAAP10-120105-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met with the exception listed below.
- B. Due to holding time problems, the following detected and nondetected results are qualified as estimated (J-h/UJh).

- Nitrate as N and Nitrite as N in sample IRPMW15-120105-WER

The analysis holding time of 48 hours was exceeded by 0.5 hours in the sample listed above.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995 .

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

- Ammonium as N in samples HWAAP10-120105-W\*
- TKN in samples HWAAP10-120105-W\* IRPMW14A-120105-W IRPMW14B-120105-W

The following analytes were detected in the associated equipment rinsate at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
Ammonium as N	IRPMW15-120105-WER	0.60 mg/L
TKN	IRPMW15-120105-WER	0.87 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

#### **IV. Matrix Spike (MS)**

- A. The MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified. The MS/MSD analyses were performed on a non-client sample for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

#### **V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

#### **VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### **VII. Field Duplicate**

- A. No RPDs above 25% were obtained for the field duplicate samples IRPMW14A-120105-W / IRPMW14A-120105-W.

#### **VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

#### ***Full Validation Criteria for Sample HWAAP10-120105-W\****

#### **IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the volatile, explosives, and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.

- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.

B. Due to technical holding time and field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:

- Due to technical holding time problems, Nitrate as N and Nitrite as N results were qualified as estimated in one sample.
- Due to equipment rinsate contamination problems, Ammonium as N was qualified nondetect in one sample and TKN was qualified nondetect in three samples.
- All detected results reported above the MDL but below the RL were qualified as estimated.

C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB04**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/14/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis**

1. Detected results above the MDL but below the RL for Tetrachloroethene and Trichloroethene in the following samples were qualified as estimated (Jg):

IRPMW04-112905-W  
IRPMW05-112905-W

2. Detected results above the MDL but below the RL for Tetrachloroethene in the following samples were qualified as estimated (Jg):

IRPMW14A-120105-W  
IRPMW14B-120105-W  
USGS103-41MW23-113005-W

**Non-CLP Inorganic and Physical Analysis**

1. Results for Ammonium as N in sample HWAAP10-120105-W were qualified (Ub) as the analyte was detected in the associated equipment rinsate. (Sample results were less than 5x the maximum blank contamination).
2. Results for TKN in the following samples were qualified (Ub) as the analyte was detected in the associated equipment rinsate: (Sample results were less than 5x the maximum blank contamination)

HWAAP10-120105-W  
IRPMW14A-120105-W  
IRPMW14B-120105-W

3. Due to technical holding time problems, Nitrate as N and Nitrite as N results in sample IRPMW15-120105-WER were qualified as estimated (Jgh/UJh). The analysis holding time of 48 hours was exceeded by 0.5 hours.

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

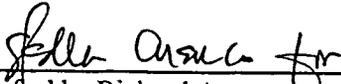
Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14575E  
Review Date: January 31 through February 1, 2006  
Sample Delivery Group (SDG) No.: WAB05  
Sample Nos.: IRPMW07-120205-W      IRPMW08A-120205-W      IRPMW15-120205-W

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 2, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
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- \* Initial and continuing calibrations
- \* Blanks
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- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
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- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

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- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

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- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW19-120505-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW16-120205-WER (from SDG WAB03).

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

#### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW11-120505-WER. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- B. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW16-120205-WER (from SDG WAB03).

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen and Total Kjeldahl Nitrogen (TKN).

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN was met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  0.995 .

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• Ammonium as N in samples	IRPMW07-120205-W	IRPMW08A-120205-W
• TKN in samples	IRPMW07-120205-W IRPMW08A-120205-W	IRPMW15-120205-W

The following analytes were detected in the associated equipment rinsate at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration, mg/L</u>
Ammonium as N	IRPMW16-120205-WER (from SDG WAB03)	0.13
TKN	IRPMW16-120205-WER (from SDG WAB03)	0.31

### IV. Matrix Spike (MS)

- A. The MS analysis was not performed for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.

### V. Matrix Duplicate (DUP)

- A. The DUP analysis was not performed for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the non-CLP inorganic and physical analysis, the MS analysis was not performed for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N was qualified nondetect in two samples and TKN was qualified nondetect in three samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB05**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/14/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Non-CLP Inorganic and Physical Analysis**

1. Results for Ammonium as N in the following samples were qualified (Ub) as the analyte was detected in the associated equipment rinsate: (Sample results were less than 5x the maximum blank contamination)

IRPMW07-120205-W  
IRPMW08A-120205-W

2. Results for TKN in the following samples were qualified (Ub) as the analyte was detected in the associated equipment rinsate: (Sample results were less than 5x the maximum blank contamination)

IRPMW07-120205-W  
IRPMW08A-120205-W  
IRPMW15-120205-W

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14575F  
Review Date: January 31 through February 1, 2006  
Sample Delivery Group (SDG) No.: WAB06

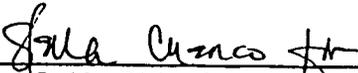
Sample Nos.:	IRPMW11-120505-WER	IRPMW30-120505-W	IRPMW11-120505-WERMS
	IRPMW16-120505-W	IRPMW31-120505-W	IRPMW11-120505-WERMSD
	IRPMW18-120505-W	IRPMW32-120505-W	IRPMW19-120505-WMS
	IRPMW19-120505-W*	IRPMW32-120505-WER	IRPMW19-120505-WMSD

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 5, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW19-120505-W\*. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate samples IRPMW11-120505-WER and IRPMW32-120505-WER.

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

#### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW19-120505-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

- I. **Holding Times**
  - A. The 7 day analysis holding time requirement for unpreserved waters was met.
- II. **Surrogate Recovery**
  - A. All surrogate recoveries (%R) were within the QC limits.
- III. **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**
  - A. The MS/MSD analysis was performed on sample IRPMW11-120505-WER. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- IV. **Blank Spike or Laboratory Control Sample (LCS)**
  - A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- V. **Blank Contamination**
  - B. No explosive contaminants were found in the method blanks and the equipment rinsate samples IRPMW11-120505-WER and IRPMW32-120505-WER.
- VI. **Calibrations**
  - A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
  - B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.
- VII. **Field Duplicate**
  - A. No field duplicate samples were identified in this SDG.
- VIII. **Other Qualifications**
  - A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW19-120505-W \**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995 .

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• Ammonium as N in samples	IRPMW16-120505-W IRPMW18-120505-W	IRPMW19-120505-W* IRPMW30-120505-W
• TKN in samples	IRPMW16-120505-W IRPMW18-120505-W IRPMW19-120505-W*	IRPMW30-120505-W IRPMW31-120505-W IRPMW32-120505-W
• Nitrate as N in sample	IRPMW32-120505-W	

The following analytes were detected in the associated equipment rinsate at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration, mg/L</u>
Ammonium as N	IRPMW11-120505-WER	0.20
TKN	IRPMW11-120505-WER	0.44
Nitrate as N	IRPMW11-120505-WER	0.026
Ammonium as N	IRPMW32-120505-WER	0.098
TKN	IRPMW32-120505-WER	0.32
Nitrate as N	IRPMW32-120505-WER	0.027

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample IRPMW19-120505-W\* for all analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq$ 20% QC limits for inorganic analyses and the  $\leq$ 10% QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for this SDG. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample IRPMW19-120505-W \****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N was qualified nondetect in four samples, and TKN was qualified nondetect in six samples, and Nitrate as N was qualified nondetect in one sample.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB06**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/14/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Non-CLP Inorganic and Physical Analysis**

1. Results for Ammonium as N in the following samples were qualified (Ub) as the analyte was detected in the associated equipment rinsate: (Sample results were less than 5x the maximum blank contamination)
  - IRPMW16-120505-W
  - IRPMW18-120505-W
  - IRPMW19-120505-W
  - IRPMW30-120505-W
  
2. Results for TKN in the following samples were qualified (Ub) as the analyte was detected in the associated equipment rinsate: (Sample results were less than 5x the maximum blank contamination)
  - IRPMW16-120505-W
  - IRPMW18-120505-W
  - IRPMW19-120505-W
  - IRPMW30-120505-W
  - IRPMW31-120505-W
  - IRPMW32-120505-W
  
3. Results for Nitrate as N in sample IRPMW32-120505-W were qualified (Ub) as the analyte was detected in the associated equipment rinsate. (Sample results were less than 5x the maximum blank contamination).
  
4. Detected results for Ammonium as N and Nitrate as N in samples IRPMW11-120505-WER and IRPMW32-120505-WER were qualified as estimated (Jg). Also, detected results for Nitrate as N in sample IRPMW30-120505-W were qualified as estimated (Jg). These results were above the MDL but below the RL.

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629A  
Review Date: February 13, 2006  
Sample Delivery Group (SDG) No.: WAB07

Sample Nos.:	IRPMW11-120505-WER	IRPMW30-120505-W	IRPMW36-120605-W*
	IRPMW11-120605-W	IRPMW31-120505-W	IRPMW36-120605-WER
	IRPMW12A-120605-W	IRPMW32-120505-W	IRPMW48-120605-W
	IRPMW12B-120605-W	IRPMW32-120505-WER	IRPMW48-120605-W-WER
	IRPMW13-120605-W	IRPMW33-120605-W*	TB120505
	IRPMW16-120505-W	IRPMW34-120605-W	IRPMW19-120505-WMS
	IRPMW18-120505-W	IRPMW35-120605-W	IRPMW19-120505-WMSD
	IRPMW19-120505-W		

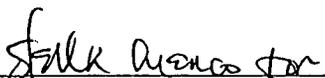
\* Full Validation Sample

Matrix: Water

Collection Date(s): December 5 through December 6, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications

**TABLE 1  
SAMPLE CROSS REFERENCE TABLE  
SAMPLE DELIVERY GROUP WAB07**

Sample ID	Matrix	Date Collected	Quality Control ID	Validation Criteria*	Analyses															
					VOC (8260B)	EXPLOSIVES	PICRIC ACID	AMMONIUM	NITRATE	NITRITE	TKN									
IRPMW11-120505-WER	Water	12/05/05	Equipment Rinsate		X															
IRPMW11-120605-W	Water	12/06/05			X	X	X	X	X	X	X									
IRPMW12A-120605-W	Water	12/06/05			X	X	X	X	X	X	X									
IRPMW12B-120605-W	Water	12/06/05	Field Duplicate of IRPMW12A-120605-W		X	X	X	X	X	X	X									
IRPMW13-120605-W	Water	12/06/05			X	X	X	X	X	X	X									
IRPMW16-120505-W	Water	12/05/05			X															
IRPMW18-120505-W	Water	12/05/05			X															
IRPMW19-120505-W	Water	12/05/05	MS/MSD**		X**															
IRPMW30-120505-W	Water	12/05/05			X															
IRPMW31-120505-W	Water	12/05/05			X															
IRPMW32-120505-W	Water	12/05/05			X															
IRPMW32-120505-WER	Water	12/05/05	Equipment Rinsate		X															
IRPMW33-120605-W	Water	12/06/05		Full	X	X	X	X	X	X	X									
IRPMW34-120605-W	Water	12/06/05			X	X	X	X	X	X	X									
IRPMW35-120605-W	Water	12/06/05			X	X	X	X	X	X	X									
IRPMW36-120605-W	Water	12/06/05		Full	X	X	X	X	X	X	X									
IRPMW36-120605-WER	Water	12/06/05	Equipment Rinsate		X	X	X	X	X	X	X									
IRPMW48-120605-W	Water	12/06/05			X	X	X	X	X	X	X									
IRPMW48-120605-W-WER	Water	12/06/05	Equipment Rinsate		X	X	X	X	X	X	X									
TB120505	Water	12/05/05	Trip Blank		X															

\* = Cursory validation performed on all samples  
 \*\* = MS/MSD/DUP performed on indicated parameters only

\*\*\* = Full review performed on indicated parameters only  
 TKN = Total Kjeldahl Nitrogen

MS/MSD = Matrix Spike/Matrix Spike Duplicate  
 DUP = Matrix duplicate

## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

- I. **Holding Times**
  - A. The 14 day analysis holding time requirement for preserved waters was met.
- II. **Surrogate Recovery**
  - A. The surrogate percent recoveries (%R) were within the QC limits.
- III. **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**
  - A. The MS/MSD analysis was performed on sample IRPMW19-120505-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- IV. **Blank Spike or Laboratory Control Sample (LCS)**
  - A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.
- V. **Blank Contamination**
  - A. No common laboratory contaminants were found in the samples. No volatile contaminants were found in the method blanks, the equipment rinsate samples IRPMW11-120505-WER, IRPMW32-120505-WER, IRPMW36-120605-WER, and IRPMW48-120605-W-WER, and the trip blank sample TB120505.
- VI. **Calibrations**
  - A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
  - B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05.
- VII. **Internal Standards**

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

#### **VIII. Field Duplicate**

- A. No detected results were reported for the field duplicate samples IRPMW12A-120605-W / IRPMW12B-120605-W.

#### **IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

#### ***Full Validation Criteria for Samples IRPMW33-120605-W\* and IRPMW36-120605-W\****

#### **X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

#### **XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

#### **XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

#### **XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

#### **XIV. System Performance**

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate samples IRPMW36-120605-WER and IRPMW48-120605-W-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW12A-120605-W / IRPMW12B-120605-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Samples IRPMW33-120605-W\* and IRPMW36-120605-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate samples IRPMW36-120605-WER and IRPMW48-120605-W-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW12A-120605-W / IRPMW12B-120605-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Samples IRPMW33-120605-W\* and IRPMW36-120605-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• TKN in samples	IRPMW12B-120605-W	IRPMW34-120605-W	IRPMW36-120605-W*
	IRPMW13-120605-W	IRPMW35-120605-W	IRPMW48-120605-W
	IRPMW33-120605-W*		

The following analyte was detected in the associated equipment rinsates at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
TKN	IRPMW36-120605-WER	0.16 mg/L
TKN	IRPMW48-120605-W-WER	0.19 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample IRPMW19-120505-W and a non-client sample for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq$ 20% QC limits for inorganic analyses and the  $\leq$ 10% QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. The following RPDs were obtained for the field duplicate samples IRPMW12A-120605-W / IRPMW12B-120605-W:

- 200% for TKN

For water samples, the field RPD guideline is  $\pm 25\%$ . The data are not qualified on the basis of field duplicate results.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Samples IRPMW33-120605-W\* and IRPMW36-120605-W\****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, TKN was qualified nondetect in seven samples.

- All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.
- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB07**

**Prepared by:** Su Patel, Tetra Tech EM, Inc.  
**Date:** 2/28/06  
**Site Name/DO Number:** Hawthorne Army Depot/G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis**

1. Detected results above the MDL but below the RL for Cis-1, 2-Dichloroethene, Tetrachloroethene and Trichloroethene in sample IRPMW18-120505-W were qualified as estimated (Jg). Also, detected results above the MDL but below the RL for Trichloroethene in sample IRPMW33-120605-W and for Cis-1, 2-Dichloroethene in sample IRPMW16-120505-W were qualified as estimated (Jg).
2. Detected results above the MDL but below the RL for Carbon Tetrachloride and Chloroform in sample IRPMW31-120505-W were qualified as estimated (Jg). Also, detected results above the MDL but below the RL for Chloroform in sample IRPMW33-120605-W were qualified as estimated (Jg).
3. Detected results above the MDL but below the RL for Bromodichloromethane in sample IRPMW48-120605-W were qualified as estimated (Jg).

**Non-CLP Inorganic and Physical Analysis**

1. Results for TKN in the following samples were qualified (Ub) as the analyte was detected in the associated equipment rinsates IRPMW36-120605-WER and IRPMW48-120605-WER:

IRPMW12B-120605-W  
IRPMW13-120605-W  
IRPMW33-120605-W  
IRPMW34-120605-W  
IRPMW35-120605-W  
IRPMW36-120605-W  
IRPMW48-120605-W

(Sample results were less than 5x the maximum blank contamination)

2. Detected results above the MDL but below the RL for Ammonium as N in samples IRPMW13-120605-W, IRPMW33-120605-W, IRPMW34-120605-W, IRPMW35-120605-W and IRPMW36-120605-W were qualified as estimated (Jg).
3. Detected results above the MDL but below the RL for Nitrate as N in sample IRPMW36-120505-WER and IRPMW48-120605-WER were qualified as estimated (Jg).

There were no other modifications to the validation report.

# DATA VALIDATION REPORT

Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629B  
Review Date: February 13, 2006  
Sample Delivery Group (SDG) No.: WAB08

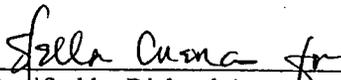
Sample Nos.:	BLDG70MW01-120705-W	HWAAP17-120705-W	IRPMW26-120705-W
	HWAAP15-120705-W	HWAAP18-120705-W	IRPMW27-120705-W
	HWAAP15-120705-WER	IRPMW24-120705-W	IRPMW28-120705-W
	HWAAP16A-120705-W	IRPMW24-120705-WER	IRPMW28-120705-WMS
	HWAAP16B-120705-W	IRPMW25-120705-W*	IRPMW28-120705-WMSD

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 7, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ** Estimated nondetected result
- J** Estimated detected result
- R** Rejected result
- NJ** Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a** Surrogate recovery exceedance
- b** Laboratory method blank and common blank contamination, Field blank contamination
- c** Matrix spike/Matrix spike duplicates recovery exceedance
- d** Duplicate precision exceedance
- e** Internal standard exceedance
- f** Calibration exceedance
- g** Quantification below reporting limit
- h** Other qualifications

**TABLE 1  
SAMPLE CROSS REFERENCE TABLE  
SAMPLE DELIVERY GROUP WAB08**

Sample ID	Matrix	Date Collected	Quality Control ID	Validation Criteria*	Analyses												
					VOC (8260B)	EXPLOSIVES	PICRIC ACID	AMMONIUM	NITRATE	NITRITE	TKN						
BLDG70MW01-120705-W	Water	12/07/05				X	X	X	X	X	X						
HWAAP15-120705-W	Water	12/07/05				X	X	X	X	X	X						
HWAAP15-120705-WER	Water	12/07/05	Equipment Rinsate			X	X	X	X	X	X						
HWAAP16A-120705-W	Water	12/07/05				X	X	X	X	X	X						
HWAAP16B-120705-W	Water	12/07/05	Field Duplicate of HWAAP16A-120705-W			X	X	X	X	X	X						
HWAAP17-120705-W	Water	12/07/05				X	X	X	X	X	X						
HWAAP18-120705-W	Water	12/07/05				X	X	X	X	X	X						
IRPMW24-120705-W	Water	12/07/05				X	X	X	X	X	X						
IRPMW24-120705-WER	Water	12/07/05	Equipment Rinsate			X	X	X	X	X	X						
IRPMW25-120705-W	Water	12/07/05		Full		X	X	X	X	X	X						
IRPMW26-120705-W	Water	12/07/05				X	X	X	X	X	X						
IRPMW27-120705-W	Water	12/07/05				X	X	X	X	X	X						
IRPMW28-120705-W	Water	12/07/05	MS/MSD**			X	X	X	X**	X**	X						

\* = cursory validation performed on all samples  
 \*\* = MS/MSD/DUP performed on indicated parameters only

\*\*\* = Full review performed on indicated parameters only  
 TKN = Total Kjeldahl Nitrogen

MS/MSD = Matrix Spike/Matrix Spike Duplicate  
 DUP = Matrix duplicate

## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

- I. Holding Times**
  - A. The 7 day analysis holding time requirement for unpreserved waters was met.
- II. Surrogate Recovery**
  - A. The surrogate percent recoveries (%R) were within the QC limits.
- III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)**
  - A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
- IV. Blank Spike or Laboratory Control Sample (LCS)**
  - A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- V. Blank Contamination**
  - A. No explosive contaminants were found in the method blanks and the equipment rinsate samples HWAAP15-120705-WER and IRPMW24-120705-WER.
- VI. Calibrations**
  - A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
  - B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.
- VII. Field Duplicate**
  - A. No detected results were reported for the field duplicate samples IRPMW16A-120705-W / IRPMW16B-120705-W.

**VIII. Other Qualifications**

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW25-120705-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate samples HWAAP15-120705-WER and IRPMW24-120705-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW16A-120705-W / IRPMW16B-120705-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW25-120705-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995 .

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• Ammonium as N in samples	BLDG70MW01-120705-W	IRPMW24-120705-W
	HWAAP15-120705-W	IRPMW25-120705-W*
	HWAAP16A-120705-W	IRPMW26-120705-W
• TKN in samples	BLDG70MW01-120705-W	IRPMW24-120705-W
	HWAAP15-120705-W	IRPMW25-120705-W*
	HWAAP16A-120705-W	IRPMW26-120705-W
	HWAAP16B-120705-W	IRPMW27-120705-W
	HWAAP17-120705-W	IRPMW28-120705-W
• Nitrate as N in samples	IRPMW24-120705-W	IRPMW28-120705-W
	IRPMW25-120705-W*	

The following analyte was detected in the associated equipment rinsates at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration, mg/L</u>
Ammonium as N	HWAAP15-120705-WER	0.094
TKN	HWAAP15-120705-WER	0.11
Ammonium as N	IRPMW24-120705-WER	0.17
TKN	IRPMW24-120705-WER	0.22
Nitrate as N	IRPMW24-120705-WER	0.072

Detected results less than 5x the maximum blank contamination were qualified.

#### **IV. Matrix Spike (MS)**

- A. The MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified. The MS/MSD analyses were performed on sample IRPMW28-120705-W for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

#### **V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

#### **VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### **VII. Field Duplicate**

- A. The following RPDs were obtained for the field duplicate samples HWAAP16A-120705-W / HWAAP16B-120705-W:

- 200% for Ammonium as N
- 113% for TKN

For water samples, the field RPD guideline is  $\pm 25\%$ . The data are not qualified on the basis of field duplicate results.

#### **VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

*Full Validation Criteria for Sample IRPMW25-120705-W\**

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.

- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
- For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N was qualified nondetect in six samples, TKN was qualified nondetect in ten samples, Nitrate as N was qualified nondetect in three samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

**III.** The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB08**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 6, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Explosives Analysis (EPA SW 846 Method 8330)**

1. Results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. Detected results above the MDL but below the RL for ammonium as N in the following samples are qualified as estimated (Jg):

HWAAP15-120705-WER  
IRPMW24-120705-WER

2. Detected results above the MDL but below the RL for nitrate as N in the following samples are qualified as estimated (Jg):

HWAAP17-120705-W  
IRPMW24-120705-W

3. The detected result above the MDL but below the RL for total kjeldahl nitrogen in the following sample is qualified as estimated (Jg):

HWAAP15-120705-WER

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629C  
Review Date: February 13, 2006  
Sample Delivery Group (SDG) No.: WAB09

Sample Nos.: BLDG70MW01-120705-W	IRPMW22-120805-W	IRPMW29-120805-W
HWAAP09-120805-W	IRPMW22-120805-WER	IRPMW37-120805-W*
HWAAP09-120805-WER	IRPMW23-120805-W	IRPMW38-120805-W*
HWAAP10-120805-W	IRPMW24-120705-W	IRPMW39-120805-W
HWAAP15-120705-W	IRPMW24-120705-WER	TB120705
HWAAP15-120705-WER	IRPMW25-120705-W	HWAAP16B-120705-WMS
HWAAP16A-120705-W	IRPMW26-120705-W	HWAAP16B-120705-WMS
HWAAP16B-120705-W	IRPMW27-120705-W	IRPMW23-120805-WMS
HWAAP17-120705-W	IRPMW28-120705-W	IRPMW23-120805-WMSD
HWAAP18-120705-W		

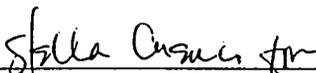
\* Full Validation Sample

Matrix: Water

Collection Date(s): December 7 through December 8, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ** Estimated nondetected result
- J** Estimated detected result
- R** Rejected result
- NJ** Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a** Surrogate recovery exceedance
- b** Laboratory method blank and common blank contamination, Field blank contamination
- c** Matrix spike/Matrix spike duplicates recovery exceedance
- d** Duplicate precision exceedance
- e** Internal standard exceedance
- f** Calibration exceedance
- g** Quantification below reporting limit
- h** Other qualifications

**TABLE 1**  
**SAMPLE CROSS REFERENCE TABLE**  
**SAMPLE DELIV. GROUP WAB09**

Sample ID	Matrix	Date Collected	Quality Control ID	Validation Criteria*	Analyses													
					V O C  (8 2 6 0 B)	E X P L O S I V E S	P I C R I C  A C I D	A M M O N I U M	N I T R A T E	N I T R I T E	T K N							
BLDG70MW01-120705-W	Water	12/07/05			X													
HWAAP09-120805-W	Water	12/08/05			X				X	X								
HWAAP09-120805-WER	Water	12/08/05	Equipment Rinsate		X	X	X	X	X	X	X							
HWAAP10-120805-W	Water	12/08/05							X	X								
HWAAP15-120705-W	Water	12/07/05			X													
HWAAP15-120705-WER	Water	12/07/05	Equipment Rinsate		X													
HWAAP16A-120705-W	Water	12/07/05			X													
HWAAP16B-120705-W	Water	12/07/05	Field Duplicate of HWAAP16A-120705-W, MS/MSD**		X**													
HWAAP17-120705-W	Water	12/07/05			X													
HWAAP18-120705-W	Water	12/07/05			X													
IRPMW22-120805-W	Water	12/08/05			X	X	X	X	X	X	X							
IRPMW22-120805-WER	Water	12/08/05	Equipment Rinsate		X	X	X	X	X	X	X							
IRPMW23-120805-W	Water	12/08/05	MS/MSD**		X	X	X	X	X**	X**	X							
IRPMW24-120705-W	Water	12/07/05			X													
IRPMW24-120705-WER	Water	12/07/05	Equipment Rinsate		X													
IRPMW25-120705-W	Water	12/07/05			X													
IRPMW26-120705-W	Water	12/07/05			X													
IRPMW27-120705-W	Water	12/07/05			X													
IRPMW28-120705-W	Water	12/07/05			X													
IRPMW29-120805-W	Water	12/08/05			X	X	X	X	X	X	X							
IRPMW37-120805-W	Water	12/08/05		Full	X	X	X	X	X	X	X							
IRPMW38-120805-W	Water	12/08/05		Full	X	X	X	X	X	X	X							
IRPMW39-120805-W	Water	12/08/05			X	X	X	X	X	X	X							
TB120705	Water	12/07/05	Trip Blank		X													

\* = Cursory validation performed on all samples  
 \*\* = MS/MSD/DUP performed on indicated parameters only

\*\*\* = Full review performed on indicated parameters only  
 TKN = Total Kjeldahl Nitrogen

MS/MSD = Matrix Spike/Matrix Spike Duplicate  
 DUP = Matrix duplicate

## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample HWAAP16B-120705-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. No common laboratory contaminants were found in the samples. No volatile contaminants were found in the method blanks, the equipment rinsate samples HWAAP09-120805-WER, HWAAP15-120705-WER, IRPMW22-120805-WER, and IRPMW24-120705-WER, and the trip blank sample TB120705.

#### VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05 with the exceptions listed below.
- C. The following continuing calibrations had percent differences (%D) of  $>25\%$ .

<u>Calibration Date</u>	<u>Compound</u>	<u>%D</u>
12/19/05 (G3703Q01)	1,2,4-Trichlorobenzene	38.35

<u>Calibration Date</u>	<u>Compound</u>	<u>%D</u>
12/19/05 (G3704Q01)	1,2,4-Trichlorobenzene	25.43

Although the above listed percent differences demonstrate a high bias, the associated sample results were nondetected and therefore were not qualified.

#### **VII. Internal Standards**

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

#### **VIII. Field Duplicate**

- A. No detected results were reported for the field duplicate samples HWAAP16A-120705-W / HWAAP16B-120705-W.

#### **IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

#### **Full Validation Criteria for Samples IRPMW37-120805-W\* and IRPMW38-120805-W\***

#### **X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

#### **XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

#### **XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

**XIV. System Performance**

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate samples HWAAP09-120805-WER and IRPMW22-120805-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Samples IRPMW37-120805-W\* and IRPMW38-120805-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

- I. Holding Times**
  - A. The 7 day analysis holding time requirement for unpreserved waters was met.
- II. Surrogate Recovery**
  - A. All surrogate recoveries (%R) were within the QC limits.
- III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)**
  - A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
- IV. Blank Spike or Laboratory Control Sample (LCS)**
  - A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- V. Blank Contamination**
  - A. No picric acid contaminants were found in the method blanks and the equipment rinsate samples HWAAP09-120805-WER and IRPMW22-120805-WER.
- VI. Calibrations**
  - A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
  - B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.
- VII. Field Duplicate**
  - A. No field duplicate samples were identified in this SDG.
- VIII. Other Qualifications**
  - A. No results reported below the required report limit (RL).

*Full Validation Criteria for Samples IRPMW37-120805-W\* and IRPMW38-120805-W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).
- Nitrate as N in sample    HWAAP09-120805-W
  - TKN in samples            IRPMW22-120805-W

The following analyte was detected in the associated equipment rinsates at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
Nitrate as N	HWAAP09-120805-WER	0.032 mg/L
TKN	IRPMW22-120805-WER	0.11 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified. The MS/MSD analyses were performed on sample IRPMW23-120805-W for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Samples IRPMW37-120805-W\* and IRPMW38-120805-W\****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.

- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Nitrate as N and TKN were qualified nondetect in one sample.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.
- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB09**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 6, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Table 1, Sample Cross Reference Table**

The table mistakenly lists that a matrix spike and matrix spike duplicate were performed on IRPMW22-120805-WER for nitrate and nitrite nitrogen. The table was corrected to indicate that sample IRPMW23-120805-W was used as the QC sample.

**Volatile Organics Analysis (EPA SW 846 Method 8260B)**

The detected result above the MDL but below the RL for chloroform in the following sample is qualified as estimated (Jg):

IRPMW23-120705-W

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. The detected result above the MDL but below the RL for ammonium as N in the following sample is qualified as estimated (Jg):

IRPMW22-120805-W

2. The detected result above the MDL but below the RL for total kjeldahl nitrogen in the following sample is qualified as estimated (Jg):

IRPMW22-120805-W ER

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot

Contract Task Order (CTO) No.: G1058.6.4.01.177.04

Laboratory: Applied P & Ch Laboratory

Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.

Firm/Proj. No: Laboratory Data Consultants, Inc./14629D

Review Date: February 13, 2006

Sample Delivery Group (SDG) No.: WAB10

Sample Nos.: IRPMW40A-120905-W      IRPMW46-120905-W      TB120905  
IRPMW40B-120905-W      IRPMW46-120905-WER      IRPMW46-120905-WERMS  
IRPMW41-120905-W      IRPMW47-120905-W\*      IRPMW46-120905-WERMSD  
IRPMW45-120905-W

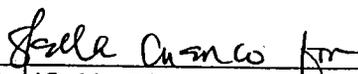
\* Full Validation Sample

Matrix: Water

Collection Date(s): December 9, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW46-120905-WER. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. No common laboratory contaminants were found in the samples. No volatile contaminants were found in the method blanks, the equipment rinsate sample IRPMW46-120905-WER, and the trip blank sample TB120905.

#### VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05 .

#### VII. Internal Standards

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

**VIII. Field Duplicate**

- A. No detected results were reported for the field duplicate samples IRPMW40A-120905-W / IRPMW40B-120905-W.

**IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

*Full Validation Criteria for Sample IRPMW47-120905-W \**

**X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

**XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

**XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

**XIV. System Performance**

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW46-120905-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW40A-120905-W / IRPMW40B-120905-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW47-120905-W \**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample IRPMW46-120905-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW40A-120905-W / IRPMW40B-120905-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW47-120905-W \**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• TKN in samples	IRPMW40A-120905-W	IRPMW41-120905-W	IRPMW46-120905-W
	IRPMW40B-120905-W	IRPMW45-120905-W	

The following analyte was detected in the associated equipment rinsates at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
TKN	IRPMW46-120905-WER	0.32 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample IRPMW50A-120905-W for all analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

### V. Matrix Duplicate (DUP)

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. The following RPDs were obtained for the field duplicate samples IRPMW40A-120905-W / IRPMW40B-120905-W:

- 200% for Ammonium as N

For water samples, the field RPD guideline is  $\pm 25\%$ . The data are not qualified on the basis of field duplicate results.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample IRPMW47-120905-W \****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.

- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, TKN was qualified nondetect in five samples.

- All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.
- III.** The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB10**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 7, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis (EPA SW 846 Method 8260B)**

1. The detected result above the MDL but below the RL for dibromochloromethane in sample IRPMW45-120905-W and for bromodichloromethane in sample IRPMW47-120905-W are qualified as estimated (Jg):

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. Detected results above the MDL but below the RL for ammonium as N in the following samples are qualified as estimated (Jg):

IRPMW40B-120905-W  
IRPMW45-120905-W

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

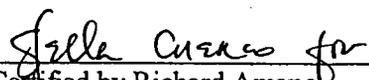
Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629E  
Review Date: February 13 through February 14, 2006  
Sample Delivery Group (SDG) No.: WAB11  
Sample Nos.: IRPMW49-120905-W      IRPMW50A-120905-WDL\*      IRPMW51B-120905-W  
                  IRPMW50-120905-W      IRPMW51-120905-WER      IRPMW50A-120905-WMS  
                  IRPMW50A-120905-W\*      IRPMW51A-120905-W      IRPMW50A-120905-WMSD

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 9, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW50A-120905-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits with the exceptions listed below.
- B. The recoveries that did not meet the QC limits are listed below.

<u>Sample ID</u>	<u>Compound</u>	<u>MS %R</u>	<u>MSD %R</u>	<u>QC Limits</u>
IRPMW50A-120905-W	Trichloroethene	-219	-254	70-130%

No data qualifications were performed because of the high concentration in the unspiked sample.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. Due to common laboratory contamination, the following results are considered nondetected (Ub).

- Dichloromethane in sample IRPMW50A-120905-W\*

Acetone, Methylene chloride (Dichloromethane), and 2-Butanone are considered common laboratory contaminants when found at levels less than 5x the RL in environmental samples and not found in the associated blanks.

- B. No volatile contaminants were found in the method blanks and the equipment rinsate sample IRPMW51-120905-WER.

## VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05 with the exceptions listed below.
- C. The following continuing calibrations had percent differences (%D) of  $>25\%$ .

<u>Calibration Date</u>	<u>Compound</u>	<u>%D</u>
12/19/05 (G3704Q01)	1,2,4-Trichlorobenzene	25.43
12/21/05 (G3723Q01)	1,2,4-Trichlorobenzene	43.40
12/21/05 (G3723Q01)	1,2,3-Trichlorobenzene	25.87

Although the above listed percent differences demonstrate a high bias, the associated sample results were nondetected and therefore were not qualified.

## VII. Internal Standards

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

## VIII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW51A-120905-W / IRPMW51B-120905-W.

## IX. Other Qualifications

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

- B. The following detected results are qualified as estimated (Jh).

- Trichloroethene in sample IRPMW50A-120905-W\*

The above listed sample results exceeded the calibration range.

*Full Validation Criteria for Samples IRPMW50A-120905-W\* and IRPMW50A-120905-WDL\**

**X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

**XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

**XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

**XIV. System Performance**

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW50A-120905-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW51-120905-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW51A-120905-W / IRPMW51B-120905-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW50A-120905-W \**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW50A-120905-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample IRPMW51-120905-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW51A-120905-W / IRPMW51B-120905-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample IRPMW50A-120905-W \**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• Ammonium as N in samples	IRPMW50-120905-W IRPMW50A-120905-W*	IRPMW51A-120905-W IRPMW51B-120905-W
• TKN in samples	IRPMW49-120905-W IRPMW50-120905-W	IRPMW50A-120905-W*

The following analytes were detected in the associated equipment rinsate at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
Ammonium as N	IRPMW51-120905-WER	0.13 mg/L
TKN	IRPMW51-120905-WER	0.17 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample IRPMW50A-120905-W for all analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq$ 20% QC limits for inorganic analyses and the  $\leq$ 10% QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. The following RPDs were obtained for the field duplicate samples IRPMW51A-120905-W / IRPMW51B-120905-W:

- 57% for TKN

For water samples, the field RPD guideline is  $\pm 25\%$ . The data are not qualified on the basis of field duplicate results.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample IRPMW50A-120905-W \****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to common laboratory contamination and compound quantitation problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- Due to common laboratory contamination problems, Dichloromethane was qualified nondetect in one sample.
  - All detected results reported below the RL were qualified as estimated.
  - Due to compound quantitation problems, Trichloroethene was qualified as estimated in one sample.
- C. Sample IRPMW50A-120905-W\* was diluted due to sample results exceeding the calibration range. For sample IRPMW50A-120905-W\*, all volatile results except Trichloroethene should be considered the most usable. The Trichloroethene results for sample IRPMW50A-120905-WDL\* should be considered the most usable.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.

- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N was qualified nondetect in four samples and TKN was qualified nondetect in three samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.
- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB11**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 9, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis (EPA SW 846 Method 8260B)**

1. Detected results above the MDL but below the RL for chloroform and tetrachloroethene in sample IRPMW50A-120905-W are qualified as estimated (Jg)
2. During validation, the trichloroethene (TCE) result from sample IRPMW50A-120905-W was reported from an undiluted analysis and qualified as estimated (Jh) because the result was over the calibration curve. However, the sample was also analyzed at a ten fold dilution. The TCE result from the ten fold dilution is listed in the data base without qualification.

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. The detected result reported above the MDL but below the RL for ammonium as N in the following sample is qualified as estimated (Jg):

IRPMW51-120905-W

2. The detected result reported above the MDL but below the RL for total kjeldahl nitrogen in the following sample is qualified as estimated (Jg):

IRPMW51-120905-W

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

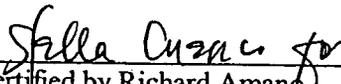
Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629F  
Review Date: February 13, 2006  
Sample Delivery Group (SDG) No.: WAB12  
Sample Nos.: DZB10113MW8-121205-W IRPMW56-121205-W IRPMW37A-121205-W  
DZB10113MW8-121205-WER

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 12, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
\_\_\_\_\_  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW21A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample DZB10113MW8-121205-WER.

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

#### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW21A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample DZB10113MW8-121205-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).



- Ammonium as N in samples DZB10113MW8-121205-WER IRPMW37A-121205-W

The recovery that did not meet the QC limits is listed below.

<u>Sample ID</u>	<u>Analyte</u>	<u>MS %R</u>	<u>MSD %R</u>	<u>QC Limits</u>
IRPMW21A-121405-W	Ammonium as N	-	127	75-125%

Spike recoveries above 125% indicate that detected results may be biased high.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.

- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination and MS/MSD problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N and Nitrate as N were qualified nondetect in one sample and TKN was qualified nondetect in three samples.
  - Due to MS/MSD recovery problems, Ammonium as N detected results were qualified as estimated in two samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB12**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.

**Date:** March 9, 2006

**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04

**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California

**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. The detected result reported above the MDL but below the RL for ammonium as N in the following sample is qualified as estimated (Jg):  
  
DZB10113MW8-121205-WER
2. The positive (+) bias discussed in the data validation report for ammonium as N for sample DZB10113MW8-121205-WER was added to the data base. The positive bias (+) was not added to the data base for sample IRPMW37A-121205-W because the result was changed to not detected due to blank contamination.
3. The detected result reported above the MDL but below the RL for nitrate as N in the following sample is qualified as estimated (Jg):

IRPMW37A-121205-W

There were no other modifications to the validation report.

# DATA VALIDATION REPORT

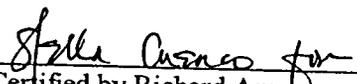
Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629G  
Review Date: February 13, 2006  
Sample Delivery Group (SDG) No.: WAB13  
Sample Nos.: IRPMW07-121305-W                      IRPMW14B-121305-W                      IRPMW44-121305-W  
                  IRPMW8A-121305-W                      IRPMW15-121305-W                      IRPMW44-121305-WER  
                  IRPMW14A-121305-W

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 13, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
\_\_\_\_\_  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW21A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW44-121305-WER.

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

#### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW21A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample IRPMW44-121305-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks. No samples were qualified based on the contaminant concentrations found in the equipment rinsate sample IRPMW44-121305-WER.

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample IRPMW21A-121405-W and a non-client sample for all analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq$ 20% QC limits for inorganic analyses and the  $\leq$ 10% QC limits for physical analyses with the exception listed below.
- B. Due to accuracy problems in the MS/MSD analysis, the following detected results are qualified as estimated (J+c).

- Ammonium as N in sample IRPMW44-121305-WER

The recovery that did not meet the QC limits is listed below.

<u>Sample ID</u>	<u>Analyte</u>	<u>MS %R</u>	<u>MSD %R</u>	<u>QC Limits</u>
IRPMW21A-121405-W	Ammonium as N	-	127	75-125%

Spike recoveries above 125% indicate that detected results may be biased high.

### V. Matrix Duplicate (DUP)

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No RPDs above 25% were obtained for the field duplicate samples IRPMW14A-121305-W / IRPMW14B-121305-W.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to MS/MSD problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to MS/MSD recovery problems, Ammonium as N detected results were qualified as estimated in one sample.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB13**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 9, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. The detected result reported above the MDL but below the RL for ammonium as N in the following sample is qualified as estimated (Jg):

IRPMW44-121305-WER

2. The positive (+) bias discussed in the data validation report for ammonium as N for sample IRPMW44-121305-WER was added to the data base.
3. The detected result reported above the MDL but below the RL for nitrate as N in the following sample is qualified as estimated (Jg):

IRPMW8A-121305-W

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot

Contract Task Order (CTO) No.: G1058.6.4.01.177.04

Laboratory: Applied P & Ch Laboratory

Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.

Firm/Proj. No: Laboratory Data Consultants, Inc./14629H

Review Date: February 13, 2006

Sample Delivery Group (SDG) No.: WAB14

Sample Nos.: DZB10113MW8-121205W IRPMW21B-121405-W IRPMW44-121305-WER  
DZB10113MW8-121205-WER IRPMW37A-121205-W IRPMW56-121205-W  
IRPMW20-121405-W IRPMW42-121405-W TB121205  
IRPMW20-121405-WER IRPMW43-121405-W IRPMW21A-121405-WMS  
IRPMW21A-121405-W IRPMW44-121305-W IRPMW21A-121405-WMSD

\* Full Validation Sample

Matrix: Water

Collection Date(s): December 12 through December 14, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW21A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. No common laboratory contaminants were found in the samples. No samples were qualified based on the volatile contaminants found in the equipment rinsate sample DZB10113MW8-121205-WER. No volatile contaminants were found in the method blanks, equipment rinsate samples IRPMW20-121405-WER and IRPMW44-121305-WER, and the trip blank sample TB121205.

#### VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05.

**VII. Internal Standards**

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

**VIII. Field Duplicate**

- A. No detected results were reported for the field duplicate samples IRPMW21A-121405-W / IRPMW21B-121405-W.

**IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).
- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

- I. **Holding Times**
  - A. The 7 day analysis holding time requirement for unpreserved waters was met.
- II. **Surrogate Recovery**
  - A. The surrogate percent recoveries (%R) were within the QC limits.
- III. **Matrix Spike/Matrix Spike Duplicate (MS/MSD)**
  - A. The MS/MSD analysis was performed on sample IRPMW21A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- IV. **Blank Spike or Laboratory Control Sample (LCS)**
  - A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.
- V. **Blank Contamination**
  - A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW20-121405-WER.
- VI. **Calibrations**
  - A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
  - B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.
- VII. **Field Duplicate**
  - A. No detected results were reported for the field duplicate samples IRPMW21A-121405-W / IRPMW21B-121405-W.
- VIII. **Other Qualifications**
  - A. No results reported below the required report limit (RL).

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample IRPMW21 A-121405-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample IRPMW20-121405-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No detected results were reported for the field duplicate samples IRPMW21 A-121405-W / IRPMW21B-121405-W.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995 .

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks. No samples were qualified based on the contaminant concentrations found in the equipment rinsate sample IRPMW20-121405-WER.

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample IRPMW21A-121405 for all analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq$ 20% QC limits for inorganic analyses and the  $\leq$ 10% QC limits for physical analyses with the exception listed below.
- B. The recovery that did not meet the QC limits are listed below.

<u>Sample ID</u>	<u>Analyte</u>	<u>MS %R</u>	<u>MSD %R</u>	<u>QC Limits</u>
IRPMW21A-121405-W	Ammonium as N	-	127	75-125%

Although the above listed percent recovery demonstrates a high bias, the associated sample results were nondetected and therefore were not qualified.

### V. Matrix Duplicate (DUP)

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No RPDs above 25% were obtained for the field duplicate samples IRPMW21A-121405-W / IRPMW21B-121405-W.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB14**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 9, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis (EPA SW 846 Method 8260B)**

1. The detected result reported above the MDL but below the RL for nitrate as N in the following sample is qualified as estimated (Jg):

IRPMW20-121405-WER

2. The detected result reported above the MDL but below the RL for tetrachloroethene in the following sample is qualified as estimated (Jg):

IRPMW20-121405-W

3. Detected results reported above the MDL but below the RL for bromodichloromethane in the following samples are qualified as estimated (Jg):

IRPMW42-121405-W  
IRPMW44-121305-W

4. The detected result reported above the MDL but below the RL for carbon tetrachloride in the following sample is qualified as estimated (Jg):

IRPMW43-121405-W

5. The detected result reported above the MDL but below the RL for trichloroethene in the following sample is qualified as estimated (Jg):

IRPMW56-121205-W

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

2. The detected result reported above the MDL but below the RL for nitrate as N in the following sample is qualified as estimated (Jg):

IRPMW20-121405-WER

3. Detected results reported above the MDL but below the RL for total kjeldahl nitrogen in the following samples are qualified as estimated (Jg):

IRPMW20-121405-W  
IRPMW21A-121405-W  
IRPMW21B-121405-W

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

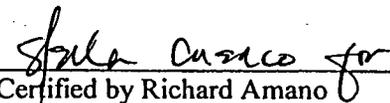
Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629I  
Review Date: February 13 through February 14, 2006  
Sample Delivery Group (SDG) No.: WAB15  
Sample Nos.: DZB10144MW1-121505W      IRPMW50B-121505-W      DZB10144MW1-121505WMS  
                  DZB10144MW2-121505W      IRPMW50B-121505-WER      DZB10144MW1-121505WMSD  
                  DZB10144MW3-121505W\*

\* Full Validation Sample

Matrix: Water  
Collection Date(s): December 15, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

#### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW50B-121505-WER.

#### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

#### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample DZB10144MW3-121505W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample IRPMW50B-121505-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

*Full Validation Criteria for Sample DZB10144MW3-121505W\**

**IX. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**X. System Performance**

- A. The samples were evaluated for baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

**XI. Compound Identification**

- A. Target compound identification was considered to be correct for the Full review samples.

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• TKN in samples	DZB10144MW1-121505W DZB10144MW2-121505W	DZB10144MW3-121505W* IRPMW50B-121505-W
• Nitrate as N in samples	DZB10144MW1-121505W	DZB10144MW2-121505W

The following analyte was detected in the associated equipment rinsates at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration, mg/L</u>
TKN	IRPMW50B-121505-WER	0.23
Nitrate as N	IRPMW50B-121505-WER	0.026

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS/MSD analyses were performed on sample DZB10144MW1-121505W and IRPMW21A-121405-W for all analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq$ 20% QC limits for inorganic analyses and the  $\leq$ 10% QC limits for physical analyses with the exception listed below.
- B. Due to accuracy problems in the MS/MSD analysis, the following detected results are qualified as estimated (J+c).

• Ammonium as N in samples	DZB10144MW1-121505W DZB10144MW2-121505W	DZB10144MW3-121505W* IRPMW50B-121505-W
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The recovery that did not meet the QC limits is listed below.

<u>Sample ID</u>	<u>Analyte</u>	<u>MS %R</u>	<u>MSD %R</u>	<u>QC Limits</u>
IRPMW21A-121405-W	Ammonium as N	-	127	75-125%

Spike recoveries above 125% indicate that detected results may be biased high.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.

Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

***Full Validation Criteria for Sample DZB10144MW3-121505W\****

**IX. Analyte Quantitation and Reported Detection Limits**

- A. Sample results were recalculated, with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for this SDG due to insufficient sample availability. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all analyses, the DUP analysis was not required.

### II. Usability

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.
- B. Due to field blank contamination and MS/MSD problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, TKN was qualified nondetect in four samples and Nitrate as N was qualified nondetect in two samples.
  - Due to MS/MSD recovery problems, Ammonium as N detected results were qualified as estimated in four samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.

**III.** The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB15**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 9, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. The positive (+) bias discussed in the data validation report for ammonium as N in samples DZB101144MW1-121505-W, DZB101144MW2-121505-W, and DZB101144MW3-121505-W was added to the data base.
2. Detected results reported above the MDL but below the RL for ammonium as N in the following samples are qualified as estimated (Jg):  
  
DZB101144MW1-121505-W  
DZB101144MW2-121505-W  
DZB101144MW3-121505-W
3. The detected result reported above the MDL but below the RL for nitrite as N in the following sample is qualified as estimated (Jg):  
  
IRPMW50B-121505-WER
4. Detected results reported above the MDL but below the RL for nitrate as N in the following samples are qualified as estimated (Jg):  
  
DZB101144MW1-121505-W  
DZB101144MW2-121505-W  
IRPMW50B-121505-WER

There were no other modifications to the validation report.

## DATA VALIDATION REPORT

Site: Hawthorne Army Depot  
Contract Task Order (CTO) No.: G1058.6.4.01.177.04  
Laboratory: Applied P & Ch Laboratory  
Data Reviewer: Richard Amano, Stella Cuenco, Erlinda Rauto,  
Pei Geng, and Ming Hwang.  
Firm/Proj. No: Laboratory Data Consultants, Inc./14629J  
Review Date: February 13 through February 14, 2006  
Sample Delivery Group (SDG) No.: WAB16

Sample Nos.: DZB10113MW4-121605-W IRPMW50B-121505-W DZB10113MW4-121605-WMS  
DZB10113MW5-121605-W IRPMW50B-121505-WER DZB10113MW4-121605-WMSD  
DZB10144MW1-121505-W IRPMW52-121605-W DZB10144MW2-121505-WMS  
DZB10144MW2-121505-W IRPMW52-121605-WER DZB10144MW2-121505-WMSD  
DZB10144MW3-121505-W\* TB121505

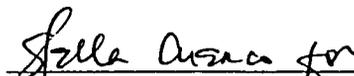
\* Full Validation Sample

Matrix: Water

Collection Date(s): December 15 through December 16, 2005

The data were qualified according to the U.S. Army Corps of Engineers (USACE) document "Environmental Data Quality Management Program Specifications, USACE Sacramento District" (Version 1.08). Data validation requirements are presented below.

I certify that all data validation criteria outlined in the above referenced documents were assessed, and any qualifications made to the data were in accordance with those documents.

  
Certified by Richard Amano  
Principal Chemist

## DATA VALIDATION REQUIREMENTS

Full validation includes all parameters listed below. Cursory validation parameters are indicated by an asterisk (\*).

### CLP Organic Parameters

- \* Holding times
- GC/MS instrument performance check
- \* Initial and continuing calibrations
- \* Blanks
- \* Surrogate recovery
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Internal standard performance
- Target compound identification
- Tentatively identified compounds
- Compound quantitation
- Reported detection limits
- System performance
- \* Overall assessment of data for the SDG

### CLP Inorganic Parameters

- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- ICP interference check sample
- GFAA quality control
- \* ICP serial dilution
- Sample result verification
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

### Non-CLP Organic and Inorganic Parameters

- \* Method compliance
- \* Holding times
- \* Initial and continuing calibrations
- \* Blanks
- \* Matrix spike/matrix spike duplicate
- \* Laboratory control sample or blank spike
- \* Field duplicates
- \* Matrix duplicates
- \* Surrogate recovery
- Analyte quantitation
- Reported detection limits
- \* Overall assessment of data for the SDG

## DATA VALIDATION QUALIFIERS AND CODES

### Data Validation Qualifiers

- UJ Estimated nondetected result
- J Estimated detected result
- R Rejected result
- NJ Tentatively Identified Compound (TIC)

### Data Validation Qualifier Codes

- a Surrogate recovery exceedance
- b Laboratory method blank and common blank contamination, Field blank contamination
- c Matrix spike/Matrix spike duplicates recovery exceedance
- d Duplicate precision exceedance
- e Internal standard exceedance
- f Calibration exceedance
- g Quantification below reporting limit
- h Other qualifications



## DATA ASSESSMENT

### VOLATILE ORGANIC ANALYSIS (EPA SW 846 Method 8260B)

#### I. Holding Times

- A. The 14 day analysis holding time requirement for preserved waters was met.

#### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

#### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was performed on sample DZB10144MW2-121505-W. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

#### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) were within the QC limits.

#### V. Blank Contamination

- A. No common laboratory contaminants were found in the samples. No volatile contaminants were found in the method blanks, equipment rinsate samples IRPMW50B-121505-WER and IRPMW52-121605-WER, and the trip blank sample TB121505.

#### VI. Calibrations

- A. Initial calibration was performed using required standard concentrations. Percent relative standard deviations (%RSD) were less than or equal to 30.0% for all volatile compounds, the coefficients of determination ( $r^2$ ) were  $\geq 0.990$ , and all of the initial calibration RRF values were greater than or equal to 0.05 for all volatile compounds.
- B. Continuing calibration was performed at the required frequencies as stated in the method. All of the continuing calibration and initial calibration verification percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were less than or equal to 25.0% and all of the continuing calibration RRF values were greater than or equal to 0.05.

**VII. Internal Standards**

- A. All internal standard area counts were within -50% to +100% of the associated calibration standard and retention times were  $\pm 30$  seconds of the associated calibration standard retention time.

**VIII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**IX. Other Qualifications**

- A. The following results are qualified as estimated (Jg).

- All VOA detected results reported below the RL.

Detected results reported below the RL are considered to be qualitatively acceptable, but quantitatively unreliable due to the uncertainty in analytical precision near the limit of detection.

*Full Validation Criteria for Sample DZB10144MW3-121505\**

**X. GC/MS Instrument Performance Checks**

- A. The ion abundance criteria were met for the bromofluorobenzene (BFB) GC/MS instrument performance check. The samples were analyzed within 12 hours of the associated instrument performance check.

**XI. Target Compound List (TCL) Identification**

- A. The relative retention times, mass spectra, and peak identifications of the samples were evaluated. Target compound identification was considered to be correct.

**XII. Compound Quantitation and Reported Detection Limits**

- A. Sample results were recalculated with the proper dilution factors, weights, volumes, and percent moisture used to calculate the sample results. The samples were found to be correctly quantitated. The reported detection limits were consistent with Tetra Tech EMI's required report limits and reflect any dilutions, weights, volumes, and percent moisture.

**XIII. Tentatively Identified Compounds (TICs)**

- A. The TIC library searches were not performed for this SDG.

#### **XIV. System Performance**

- A. The samples were evaluated for reconstructed ion chromatogram (RIC) baseline shifts, extraneous peaks, loss of resolution, and peak tailing. No system degradation was noted.

## EXPLOSIVES ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. The surrogate percent recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No explosive contaminants were found in the method blanks and the equipment rinsate sample IRPMW52-121605-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## PICRIC ACID ANALYSIS (by EPA SW 846 Method 8330)

### I. Holding Times

- A. The 7 day analysis holding time requirement for unpreserved waters was met.

### II. Surrogate Recovery

- A. All surrogate recoveries (%R) were within the QC limits.

### III. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- A. The MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries and RPDs were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.

### IV. Blank Spike or Laboratory Control Sample (LCS)

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

### V. Blank Contamination

- A. No picric acid contaminants were found in the method blanks and the equipment rinsate sample IRPMW52-121605-WER.

### VI. Calibrations

- A. Initial calibration of compounds was performed as required by the method. The coefficients of determination ( $r^2$ ) were  $\geq 0.990$ .
- B. Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

### VII. Field Duplicate

- A. No field duplicate samples were identified in this SDG.

### VIII. Other Qualifications

- A. No results reported below the required report limit (RL).

## NON-CLP INORGANIC AND PHYSICAL ANALYSIS

The following non-CLP inorganic and physical parameters were analyzed for, Ammonium as Nitrogen, Total Kjeldahl Nitrogen (TKN), Nitrite as Nitrogen, and Nitrate as Nitrogen.

### I. Holding Times

- A. The 28 day analysis holding time requirement for Ammonium as N and TKN and the 48 hour analysis holding time requirement for Nitrate as N and Nitrite as N were met.

### II. Calibrations

- A. All instruments were calibrated daily and the proper number of standards were used as required by the methods. All initial and continuing calibration verification percent recoveries (%R) were within the 90-110% QC limits and all initial calibration correlation coefficients were  $\geq$  to 0.995.

### III. Blank Contamination

- A. No contaminant concentrations were detected in the method blanks.
- B. Due to equipment rinsate contamination, the following results are considered nondetected (Ub).

• Ammonium as N in samples	DZB10113MW4-121605-W	IRPMW52-121605-W
• TKN in samples	DZB10113MW4-121605-W DZB10113MW5-121605-W	IRPMW52-121605-W
• Nitrate as N in samples	DZB10113MW4-121605-W	DZB10113MW5-121605-W

The following analytes were detected in the associated equipment rinsate at the concentrations noted below.

<u>Analyte</u>	<u>Equipment Rinsate ID</u>	<u>Concentration</u>
Ammonium as N	IRPMW52-121605-WER	0.17 mg/L
TKN	IRPMW52-121605-WER	0.36 mg/L
Nitrate as N	IRPMW52-121605-WER	0.028 mg/L

Detected results less than 5x the maximum blank contamination were qualified.

### IV. Matrix Spike (MS)

- A. The MS analysis was not performed for TKN and Ammonium as N for this SDG. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified. The MS/MSD analyses were performed on sample DZB10113MW4-121605-W for all other analyses. Percent recoveries (%R) were within the QC limits and relative percent differences (RPD) were within the  $\leq 20\%$  QC limits for inorganic analyses and the  $\leq 10\%$  QC limits for physical analyses.

**V. Matrix Duplicate (DUP)**

- A. The DUP analysis was not performed for TKN and Ammonium as N in this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

**VI. Laboratory Control Sample (LCS)**

- A. The LCS QC samples were analyzed as required under the TTEMI SOW. The percent recoveries (%R) and relative percent differences (RPD) were within the QC limits.

**VII. Field Duplicate**

- A. No field duplicate samples were identified in this SDG.

**VIII. Other Qualifications**

- A. The following results are qualified as estimated (Jg).
- All Non-CLP inorganic and physical analysis results above the MDL and below the RL.
- Results above the MDL and below the RL are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.

## OVERALL ASSESSMENT OF DATA

### I. Method Compliance and Additional Comments

- A. All analyses were conducted within all specifications of the requested methods with the exceptions listed below.
- For the explosives and picric acid analyses, the MS/MSD analysis was not performed for this SDG. Although this is a protocol violation, the associated LCS recoveries were within the QC limits and no data was qualified based on the lack of MS/MSD analysis.
  - For the non-CLP inorganic and physical analysis, the MS analysis was not performed for TKN and Ammonium as N for this SDG. Although this is a protocol violation, the associated LCS/LCSD recoveries and RPDs were within the QC limits and no data was qualified.
  - For the non-CLP inorganic and physical analysis, the DUP analysis was not performed for TKN and Ammonium as N in this SDG. Although this is a protocol violation, the associated LCS/LCSD RPDs were within the QC limits and no data was qualified. Since an MS/MSD analysis was performed for all other analyses, the DUP analysis was not required.

### II. Usability

#### SW 846 Volatile Organic Analysis

- A. No results for volatile analysis were rejected in this SDG.
- B. Due to problems in the volatile analysis, several samples were qualified as estimated. The findings were as follows:
- All detected results reported below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for volatile analysis in this SDG.

#### Explosives Analysis

- A. No results for explosives analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for explosives analysis in this SDG.

#### Picric Acid Analysis

- A. No results for picric acid analysis were rejected in this SDG.
- B. No samples were reextracted or reanalyzed for picric acid analysis in this SDG.

#### Non-CLP Inorganic and Physical Analysis

- A. No results for non-CLP inorganic and physical analysis were rejected in this SDG.

- B. Due to field blank contamination problems in the non-CLP inorganic and physical analysis, several samples were qualified as estimated. The findings were as follows:
- Due to equipment rinsate contamination problems, Ammonium as N and Nitrate as N were qualified nondetect in two samples and TKN was qualified nondetect in three samples.
  - All detected results reported above the MDL but below the RL were qualified as estimated.
- C. No samples were reextracted or reanalyzed for non-CLP inorganic and physical analysis in this SDG.
- III. The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

**DATA VALIDATION REPORT ADDENDUM  
MODIFICATION TO THE REPORT  
WAB16**

**Prepared by:** Noel Shrum, Tetra Tech EM, Inc.  
**Date:** March 9, 2006  
**Site Name/DO Number:** Hawthorne Army Depot/DO G1058.6.4.01.177.04  
**Laboratory:** Applied Physics and Chemistry Laboratory (APCL), Chino, California  
**Data Validation Firm:** Laboratory Data Consultants, Inc.

**Volatile Organics Analysis (EPA SW 846 Method 8260B)**

The detected result above the MDL but below the RL for trichloroetene in the following sample is qualified as estimated (Jg):

DZB101144MW3-121505-W

**Explosives Analysis (EPA SW 846 Method 8330)**

1. The results for the following compounds were reported to the laboratory's method detection limits, to achieve project action levels: 2-Amino-4,6-dinitrotoluene, 4-Amino-2,6-dinitrotoluene, picric acid, and RDX.

**Non-CLP Inorganic and Physical Analysis**

1. The detected result reported above the MDL but below the RL for ammonium as N in the following sample is qualified as estimated (Jg):

IRPMW52B-121605-WER

2. The detected result reported above the MDL but below the RL for nitrate as N in the following sample is qualified as estimated (Jg):

IRPMW52B-121605-WER

There were no other modifications to the validation report.

**APPENDIX G**  
**RESPONSE TO COMMENTS**

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

<b>Project:</b>	Hawthorne Groundwater Monitoring				
<b>Document:</b>	Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006				
<b>Reviewer:</b>	Ms. Raquel M. Kutsch			Date: 9/7/06	Received by TTEMI: 9/29/06
<b>Reviewer:</b>	Mr. Yuen (Kee) Chen	<b>Section:</b>	CESPK-ED-GC		Received by TTEMI: 10/21/06 & 1/8/07

Comment No	Reference	Reviewer Comments	Response
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### GENERAL COMMENTS

1.	Section page 31	<p>NDEP concurs with the recommendation made in Section 10.0 Recommendations that "the project laboratory should ensure that reporting levels (PQLs) are each below the respective state-approved ALs for HWAD." In the future, NDEP will not accept data where the practical quantitation limits (PQLs) are above the state-established action levels (ALs) and will require HWAD to resample any wells where water samples were not analyzed properly. The data obtained from annual sampling events is too important to be lost to improper laboratory procedures, and the sampling record cannot afford a void in samples that are taken only every one, two, or four years. NDEP requires that any monitoring wells that are sampled but for which data was not obtained due to laboratory or sampler error will have to be re-sampled by HWAD within one month of receiving the analytical results from the laboratory. (Note: re-sampling will be done within one month after data is received, and not within one month after the report has been submitted to NDEP.)</p>	<p>Practical Quantitation Limits (PQL) should be lower than Action Levels (AL) if possible. However the reason for elevated PQLs should be considered. Non-detected results with PQLs higher than ALs meet sensitivity requirements and should not require resampling in the following circumstances:</p> <ol style="list-style-type: none"> <li>1. Some ALs are not attainable by routine methods in commercial laboratories. (Example - 2-amino-4,6-dinitrotoluene has an AL of 0.099 µg/L but a PQL of 0.18 µg/L). Kee: There is no MCL or PRG for 2-amino-4,6-dinitrotoluene. Thus, the EPA Region 9 PRG for tap water for Aminodintroluene of 7.3 ug/L should be used instead. Please revise Table 5 accordingly.</li> <li>2. The sample is diluted to bring detected levels within the range of calibration. The dilution elevates the PQL of non-detected analytes. In these instances, the analyte detected at a high concentration usual drives decisions at the site and elevated PQLs for non-detected compounds are not a concern.</li> <li>3. Highly contaminated samples requiring dilution.</li> <li>4. Matrix interference requiring elevation of PQLs.</li> </ol>
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# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

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<b>Document:</b>	Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006				
<b>Reviewer:</b>	Ms. Raquel M. Kutsch			Date: 9/7/06	Received by TTEMI: 9/29/06
<b>Reviewer:</b>	Mr. Yuen (Kee) Chen	<b>Section:</b>	CESPK-ED-GC		Received by TTEMI: 10/21/06 & 1/8/07
<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>			<b>Response</b>

### GENERAL COMMENTS

2.	Page 11	<p>On page 11, the report indicates that "eleven of the 81 wells were either not found or were not accessible for sampling by truck-mounted equipment during the sampling event." Note that NDEP will no longer accept accessibility issues as a reason for not obtaining samples from wells. Plans must be made to attain access to all wells requiring sampling during the annual sampling event.</p>	<p>These wells include the USGS41 series wells which have been located, scheduled to be replaced, and were determined to be unsuitable for sampling. Access to the new wells will not be an issue in the future. No changes to the text of the report have been made.</p>
3.	Figures 4-14	<p>Figures 4 through 14 and Insert 2 show the HWAD action level for nitrate as N is 58 mg/L. Appendix A also includes the preliminary remediation goal (PRG) for nitrate as N as 58 mg/L. However, groundwater action levels must be based on maximum contaminant levels (MCLs) if they exist. Since nitrate as N has an MCL of 10 mg/L, the reference for the PRG of 58 mg/L should be removed from Appendix A. The action levels should be changed to 10 mg/L on Figures 4 through 14 and Insert 2, and consequently, several nitrate as N values will need to be printed in bold type showing they exceed the action level. Nitrite as N also has a PRG listed in Appendix A as</p>	<p>Preliminary remediation goals for nitrate as N and nitrite as N have been removed from Appendix A.</p> <p>ALs on Figures 4 through 14 and Insert 2 have been changed to the respective maximum contaminant levels (MCL) of 10 mg/L for nitrate as N and 1 mg/L for nitrite as N. Nitrate as N values that exceed the MCL have been printed in bold type on the figures.</p> <p>The footnotes for nitrate as N and nitrite as N in Table 5 have been changed to (1) to indicate the AL is the respective MCL.</p>

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

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<b>Reviewer:</b>	Mr. Yuen (Kee) Chen	<b>Section:</b>	CESPK-ED-GC		Received by TTEMI: 10/21/06 & 1/8/07
Comment No	Reference	Reviewer Comments	Response		
<b>GENERAL COMMENTS</b>					
		3.7 mg/L, despite a MCL of 1 mg/L. This PRG should be removed from Appendix A. Table 5 indicates that the action level for nitrate as N is 10 mg/L and for nitrite as N is 1.0 mg/L. Both values have a footnote (2) that indicates that the action level value is an EPA Region IX preliminary remediation goal for tap water, 2004. Both of these footnotes should be changed to (I), which indicates that the values are an EPA primary maximum contaminant level for drinking water. On page 26 of the text, the correct action levels (MCLs) are used when discussing nitrate and nitrite.			
4.	Page 19	On page 19 or 20, indicate that the PQL for nitrite exceeded the action level.	The PQL listed in Table 5 for nitrite as N has been corrected to 0.13 mg/L, which is below the AL. The PQL for one sample, IRPMW02, was elevated above the AL because there was a high concentration of nitrate in the sample. The elevated nitrite PQL for IRPMW02 has been added to the list on pages 19 and 20.		

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

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<b>Reviewer:</b>	Mr. Yuen (Kee) Chen	<b>Section:</b>	CESPK-ED-GC		Received by TTEMI: 10/21/06 & 1/8/07
<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>		<b>Response</b>	
<b>GENERAL COMMENTS</b>					
5.	Pages 19 and 20	<p>In Section 10.0 Recommendations, based on the information presented on pages 19 and 20 regarding the PQLs, an additional recommendation should be made that the sampling team must check any sample related issues from the previous year's sampling event so that all possible precautions can be taken to achieve sample results for each monitoring well location. Specific recommendations should be included in the recommendations section of each annual monitoring report for the next year's sampling because, as indicated in an above comment, NDEP will require re-sampling at wells where valid data results were not obtained. For example, on page 19, it is indicated that, "the PQLs were elevated due to necessary sample dilution because of high concentration of RDX reported in the samples at 329 ug/L and 443 pg/L, respectively." A recommendation should be included in Section 10.0 that specifically addresses this issue and how to ensure that PQLs do not exceed ALs for 1,3-dinitrobenzene, nitrobenzene, 4-amino-2,6-</p>		<p>A recommendation for the sampling team to review the sample related issues from the previous sampling event and take necessary precautions to achieve sample results at each monitoring well location has been added to Section 10 of the report.</p> <p>If a sample must be diluted to quantify an analyte at a high concentration, such as RDX in this instance, the project laboratory is required to report the remaining method analytes from that analysis at elevated PQLs. However, a recommendation has been added to Section 10 to remind the project laboratory to provide results of a second analysis, with a dilution 10 times more concentrated than the first dilution. It should be noted that the high concentration of the analyte that required a dilution may interfere with other method analytes in the more concentrated analysis.</p> <p>For sample IRPMW38, the monitoring well sampling form and the sampler's field notes were checked. There was no indication of inadequate sample volume on either the monitoring well sampling form or the chain of custody. The laboratory extraction form indicates that only 500 ml of sample was used in sample preparation for picric acid analyses.</p>	

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

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Comment No	Reference	Reviewer Comments	Response
<b>GENERAL COMMENTS</b>			
		dinitrotoluene, and 2,4,6-TNT for IRPMW56 and DZB 101 -44MW3. On page 20, the report indicates that the PQL for picric acid exceeded the AL for IRPMW38 because of limited sample volume. Recommendations should be made in the report to collect adequate sample volume for IRPMW38. In this report, also explain why adequate sample volume was not collected during the 2005 sampling event.	A recommendation has been added to the report to collect one extra liter of sample in a glass bottle at each monitoring well location that requires both explosives and picric acid by EPA Method 8330. This extra one liter of unpreserved sample could be used for any of the analyses that do not require a preservative in event of an accident.
6.	Page 20	Page 20 indicated that there was equipment rinseate contamination; therefore an additional recommendation should be made in Section 10.0 that additional rinses will be done during equipment decontamination and a test of the decontamination water source should be done before sampling to ensure that it does not contain low concentrations of contaminants.	<p>Additional recommendations have been added to Section 10 to address the ammonium, Total Kjeldahl Nitrogen (TKN), and nitrate contamination in equipment rinsates. The recommendations include: 1) submit a source blank for ammonium as N, TKN, and nitrate as N analyses; 2) perform equipment decontamination procedures thoroughly, especially the final rinse; and 3) collect aliquots for nitrogen parameters before opening containers containing nitric acid preservative in order to prevent cross contamination.</p> <p>The results mentioned in Section 10 that were qualified as non-detected because contamination was detected in equipment rinsates have been added to Table 5 with appropriate qualifiers.</p>

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

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Comment No	Reference	Reviewer Comments	Response
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### GENERAL COMMENTS

7.	Table 7	<p>Table 7 requires the following changes to the analysis schedule for 2006: for IRPMW01, explosives, picric acid, and VOCs should be added; for IRPMW02, VOCs should also be analyzed; for IRPMW04, ammonium as N, explosives, nitrate/nitrite, picric acid, and Total Kedad Nitrogen should be analyzed as well; IRPMW08 should be changed to IRPMW08A and should be analyzed for explosives and picric acid; IRPMW24 should also be analyzed for VOCs; IRPMW32 should not be sampled in 2006; and IRPMW50A and IRPMW50B should be sampled and analyzed for VOCs.</p>	<p>The requested changes to Table 7 have been made.</p>
8.	Page 18	<p>On page 18, the report indicates that investigation-derived waste (IDW) was disposed of by Philip Services of Fernley, Nevada. Include waste acceptance receipts in the report as an appendix.</p>	<p>The documentation has been included as Appendix E.</p> <p>(NOTE: HWAD KEPT ALL COPIES OF IDW MANIFESTS/BILLS OF LADING. TTEMI REQUESTS THIS DOCUMENTATION TO COMPLETE THIS REQUEST)</p> <p>Kee: According to HWAD, TTEMi should have copy of manifest and should be included in the report.</p>

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

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<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>			<b>Response</b>
<b>GENERAL COMMENTS</b>					
9.	Table 3	NDEP still requests that IRPMW06, slated for sampling suspension for explosives as listed in Table 3, be sampled every four years for explosives because it is down gradient of IRPMW08A, a well which requires explosive sampling annually. NDEP previously requested this in a response letter regarding the Final Work Plan for Basewide Groundwater Management dated June 20, 2006 (Kutsch to Millsap).			The requested change to the Table 3 has been made.
10.	Table 6	In Table 6, duplicate samples are included in the sampling results by the well identification IRPMW##B. This protocol is followed for all monitoring wells where duplicate samples were taken, except for IRPMW14, where duplicate sample results were identified and listed below the sample results. Duplicate samples from other wells should be identified the same as is done for IRPMW14. As the results are currently presented in the document, it seems as if there are two wells with independent samples because at HWAD there are some monitoring wells named A and B (for example, IRPMWSOA and IRPMWSOB). To avoid any confusion regarding the number of			Field duplicate samples are collected in the same manner and for the same analyses as the primary sample; however identified with labels and sample times that are slightly different so that they are not easily identified as duplicate samples by the contract laboratory.  As at HWAD there are some monitoring wells named A and B, a recommendation has been added to the report to identify the field duplicate with the sample type code "D" for Duplicate sample.

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## Review Comments

<b>Project:</b>	Hawthorne Groundwater Monitoring				
<b>Document:</b>	Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006				
<b>Reviewer:</b>	Ms. Raquel M. Kutsch			Date: 9/7/06	Received by TTEMI: 9/29/06
<b>Reviewer:</b>	Mr. Yuen (Kee) Chen	<b>Section:</b>	CESPK-ED-GC		Received by TTEMI: 10/21/06 & 1/8/07
<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>		<b>Response</b>	
<b>GENERAL COMMENTS</b>					
		HWAD monitoring wells, the method for listing duplicate samples should be changed.			
11.	Page 15	<p>On page 15, include a general description of the plan for the abandonment of the USGS 103-41 wells. Indicate that there is currently a Scope of Work section included in the Amendment of Solicitation/Modification of Contract, Contract Number W9 123 8-04-F-0 144, Modification Number P00003, effective date June 1, 2006, planning for the abandonment of the USGS wells. (Note: NDEP will request that when these wells are constructed, they be sampled for four straight quarters to obtain a baseline data set for the wells. After four straight quarters of sampling, NDEP will determine if continued quarterly sampling is needed or if the perimeter wells will then be placed on annual monitoring under the basewide groundwater monitoring plan. Quarterly results will need to be included in the annual groundwater monitoring report.)</p>		<p>The stated purpose of the report is to summarize the groundwater monitoring results from the December 2005 groundwater monitoring event at HWAD. The request is beyond the scope of the report.</p> <p>Not all the wells are included in the Basewide Annual Sampling program which is a Long Term Monitoring program (LTM). The wells that were not included are not part of the LTM effort. These "other" wells have been installed under separate contract as part of an individual SWMU monitoring or remedial program at individual SWMUs. Once the remediation is complete at a SWMU any remaining wells may be included in the LTM effort.</p> <p>If the requested precedent is followed to its logical conclusion then any environmental work planned or completed at HWAD would need to be included in every report written for any and all work planned or completed at HWAD. No change to the text of the report has been made.</p>	

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12.	Table 7	<p>In Table 7, indicate the wells DZB 101-44MW1, DZB101-44MW2, DZB101-44MW3, and IRPMW56 are being monitored quarterly for explosives and nitrates because the wells are in an area that is currently part of a remedial action. NDEP requests that when wells are subject to quarterly sampling, all quarterly results should be included in the Annual Groundwater Monitoring Report; therefore, quarterly sampling results should be included in the 2006 annual report.</p>	<p>Comment noted. Table 7 has been modified as follows:</p> <p>Asterisks have been placed following the referenced wells.</p> <p>A note has been included at the bottom of the table that reads “*Wells are being monitored quarterly for explosives and nitrates.”</p>
13.	Various	<p>Wells IRPMW50C, IRPMW50D, IRPMW50E, IRPMW50F, and IRPMW50G (SWMU I09/10) should be added to the appropriate figures in this report. Every Annual Groundwater Monitoring Report should serve as a snapshot of the wells on HWAD at the time of the sampling event, and the five wells were constructed in September 2005. Be advised that in a letter from NDEP to HWAD (Kutsch to Millsap) dated August 17, 2006, NDEP requested that at least one year of quarterly sampling be conducted at IRPMW50C through IRPMW50G to obtain baseline data for the wells. At this time, NDEP requests that the quarterly sampling be done for explosives, nitrates, and</p>	<p>The basewide groundwater monitoring program is intended to be a long term monitoring program (LTM). Wells at individual sites or SWMU that are installed for remedial purposes may not be included in the LTM program until the remediation has been completed. If appropriate, this data will be included in future reports.</p>

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### GENERAL COMMENTS

		<p>VOCs (the previous request was for VOCs only). After a year of quarterly sampling, NDEP will make a decision as to whether quarterly sampling can be suspended and the wells added to the annual plan, with their sampling schedule assessed according to Figure 15. At this time, however, the wells should be added to the appropriate report figures so that all monitoring well locations are represented. This report should contain reference to the sampling schedule that NDEP has requested. HWAD will be responsible for the submission of quarterly sampling reports for the new SWMU I09/I10 wells, and quarterly sampling results should be included in the Annual Groundwater Monitoring Report for 2006. (Be advised that NDEP has amended its request for annual sampling at the five newly installed SWMU I09/I10 wells that was submitted to HWAD in a letter regarding the Final Work Plan for Basewide Groundwater Monitoring [Kutsch to Millsap] dated June 20, 2006. NDEP's request was modified to quarterly sampling based on the results of the Final Summary Report, Volumes I and II, Monitoring Well Installation, Development and</p>	
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		Sampling, June 2006 in a letter dated August 17, 2006 [Kutsch to Millsap]. Based on this report, NDEP has again modified its sampling request for IRPMW50C through IRPMW50G to include sampling for explosives, nitrates, and VOCs.)			
14.		On Table 3, HWAAP17 should be sampled every two years for VOCs. Sampling should not be suspended as the table indicates. Based on Figure 15, wells IRPMW40 and IRPMW41 should be sampled every four years for nitrogen and VOCs instead of every two years.		The requested changes to Table 7 have been made.	
15.	Table 3	On page 3, the sentence, "as a result, further action at HWAD may require only continued groundwater monitoring and not necessarily active mitigation measures" should be clarified. The report should indicate that at some HWAD sites, further action may only consist of groundwater monitoring and not necessarily active mitigation measures, and even at those sites where groundwater is currently below action levels, continued groundwater monitoring could produce analytical results that indicate the need for active mitigation in the future.		<p>REQUEST CLIENT INPUT: The response suggested by the client is represents a potential policy statement that may not be in the best interest to HWAD.</p> <p>Kee: COE concurs with NDEP</p> <p>Kee: To TTEMI: Please revise the sentences to reflect NDEP's comment.</p>	

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16.	Page 3	On page 12, the report indicates that at HWAD, 119 wells have been installed and 38 have been destroyed or abandoned. Two different reports submitted by HWAD, the Final Work Plan for Basewide Groundwater Monitoring (2006) and the Draft Final Well Inventory Report (2006) had conflicting numbers of existing and destroyed HWAD wells. No response has been received to NDEP comments regarding those differences, and NDEP requests information regarding if the well number issue has been clarified between the two documents for inclusion in this report.	<p>REQUEST CLIENT INPUT: Comments for both reports have been submitted to HWAD and USACE for review and comment. To date no comments have been received from either party.</p> <p>Kee: USACE recommends TTMi to acknowledge there is well inventory discrepancy in the paragraph in question, and TTEMI should recommend the well inventory be conducted in Section 10.0.</p>		
17.	Page 12	On page 15, the report lists the wells where groundwater samples were not able to be collected. One of the wells named is USGS103-41MW14. On Figures 2, 3A, 3B, 11, Table 1, Table 3, and Table 4, the well is shown as USGS103-41MW16. On Insert 1 and 2 and Table 2, USGS103-41MW14 is used. NDEP, in comments to the Final Work Plan for Basewide Groundwater Monitoring (2006) and the Draft Final Well Inventory Report (2006), noted that both USGS103-41MW14 and USGS103-1641MW16 were used to refer to the	The text should read USGS103-41MW16. The well is slated to be abandoned and replaced.		

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		same well. Identify which USGS103-41 well (either -14 or -16) remains at HWAD and use that well identification consistently throughout text, figures, tables, and appendices.			
18.	Page 15	<p>On page 12, the report says, "for the 2005 monitoring event, 81 wells were selected to be sampled for VOCs, explosives, and nitrates (see Table 2)." Clarify the text to indicate that there are only 81 monitoring wells at HWAD, and that all monitoring wells at HWAD were sampled as part of the 2005 groundwater monitoring event (when it says, "...81 wells were selected...", "it implies that there are more wells that were not selected). Table 2 indicates that all HWAD monitoring wells were sampled during the 2005 event for explosives, nitrates, and VOCs. The sentence, "this sampling event would provide a baseline for determining future well sample frequency and analysis" should be changed to, all HWAD monitoring wells were sampled during the 2005 sampling event to provide a baseline for determining future well sample frequency and</p>		<p>There are more than 81 monitoring wells at HWAD. Not all the wells are included in the Basewide Annual Sampling which is a LTM program. Wells that were not included are not part of the LTM effort. These "other" wells have been installed under separate contract as part of a remediation program at individual SWMU's. Once the remediation is complete at a SWMU remaining wells may be included in the LTM program.</p>	

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		analysis.	
19.	Page 12	In Table 3, IRPMW09 shows that it was sampled 19 times for explosives, whereas the Final Work Plan for Basewide Groundwater Monitoring (2006) indicates that the well was sampled 22 times for explosives. Confirm which is correct. Also, HWAAP15 shows no sampling for explosive or VOCs, whereas the Final Work Plan for Basewide Groundwater Monitoring shows that the well was sampled once for each.	The requested changes have been made.
20.	Table 3	In this and all reports (text, figures, and tables) issued by HWAD, use uniform designations for the Solid Waste Management Units (SWMUs). The most commonly used designation follows the form SWMU B29 or SWMU A08 and is the preferred format. This form should be used for all references to SWMUs in text, tables, and figures. Dashes should not be used in SWMU names, such as SWMU B-29, and two numbers should be used in each SWMU designation, such as SWMU A08 rather than SWMU A-8.	The requested changes have been made.

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<b>EDITORIAL COMMENTS</b>					
1.	Various	Old Bomb, wastewater treatment plant, 103, 101 east, and 101 west areas should not be called SWMUs (throughout text and figures).		Corrections to text and figures have been made.	
2.	Various	Throughout the report (text and figures), waste water should be changed to wastewater.		The requested change has been made.	
3.	Page i and Page 3	On page i and page 3, change phsyical to physical.		The requested change has been made.	
4.	Page ii	On page ii, change the name of Table 5 from "Analytical Detections and Field Parameters in Groundwater, December 2005" to Summary of Compounds Detected and Field Parameters Collected from Groundwater Monitoring December 2005 to match the name on the actual figure. On page 1, under the Section 7.0 bullet, delete the word conclusions.		<p>The requested change has been made.</p> <p>The reference to Table 5 on page ii has been changed to match the name on the actual figure. The name of Insert 2 "Concentrations of Contaminants of Concern Detected in Groundwater (November/December 2005) was not changed.</p> <p>The word "conclusions" has been deleted from page 1, Section 7.0 bullet.</p>	
5.	Pages 4 and 5	On pages 4 and 5, a comma should be added to the sentence, "surface runoff occurs only after major rainfall events or unusual snow melt, and surface flow rarely reaches Walker Lake."		The requested change has been made.	

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6.	Page 7	On page 7, change the sentence "groundwater monitoring well locations is shown on Figure 2" to groundwater monitoring well locations are shown on Figure 2.			The requested change has been made.
7.	Page 8	On page 8, "the western part HWAD" should be changed to the western part of HWAD. The same paragraph needs a period at the end.			The requested change has been made.
8.	Page 10	On page 10, a comma should be added to the sentence, "groundwater samples from monitoring wells IRPMW02 (SWMU B-29) and DZB101-44MW3 (SWMU 101 EAST) contained explosives, and groundwater samples from monitoring wells IRPMW42 through IRPMW48 (SWMUs J-12/H-04), IRPMW16 through IRPMW20 (waste water treatment facilities), IRPMW37 (SWMU 101 EAST), and IRPMWSO (SWMU 1-0911-10) contained VOCs." Also, as indicated above, changes should be made to SWMU designations (i.e., SWMU B-29 to SWMU B29), and waste water should be changed to wastewater.			The comma was added, waste water has been changed to wastewater, and hyphens from all SWMU designations have been removed.

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9.	Page 11	On page 11, the citation (Tetra Tech Inc. 1998b) should be changed to (Tetra Tech Inc. 1998a), which refers to the 1997 Annual Groundwater Monitoring Report.	The requested change has been made.
10.	Page 12	On page 12, TOC should be defined as top of casing, followed by TOC in parentheses. On page 12 the sentence, "this analysis determined the wells to be sampled during the 2005 monitoring event" should be changed to, this analysis determined the wells to be sampled during the 2006 monitoring event.	The "TOC" correction has been made.  Table 3, Basewide Groundwater Monitoring Program Criteria Data, was used to determine the wells to be sampled in 2005. Table 3 was also used to determine the wells to be sampled in 2006. A summary of the recommended wells to be sampled in 2006 is presented in Table 7 and discussed in Section 10.0
11.	Page 19	On page 19, change 2-amino-4,6-dinitroluene to 2-amino-4,6-dinitrotoluene.	The requested change has been made.
12.	Page 19	On page 19, change DZB 1 0 144MW3 to DZB 10 1 -44MW3.	The requested change has been made.
13.	Page 22	On page 22, change 1.8ug/L to 1.8 ug/l.	The requested change has been made.
14.	Page22	On page 22, change "concentrations of 2-amino-4, 6-DNT has ranged." to concentrations of 2- amino-	The requested change has been made.

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		4, 6-DNT have ranged.			
15.	Page 24	On page 24, change IRPW05A to IRPMW50A.		The requested change has been made.	
16.	Page 26	On page 26 and also on page 29, the sentence "nitrate was not detected above the PQL in the samples collected from wells DZB101-44MW1 and DZB10144-MW2" is redundant because of the preceding sentence.		The requested change has been made.	
17.	Page 26	On page 26, add a comma to the sentence, "however, the PQLs for the pesticides aldrin (0.048 pg/L), dieldrin (0.096 pg/L)..		The requested change has been made.	
18.	Page 31	On page 31, remove the word graphical.		The requested change has been made.	
19.	Page 31	On page 31 the sentence, "based on Table 7, it is suggested that the following wells be sampled for the following constituents" should be changed to, "based on Table 7, it is suggested that the following wells be sampled for the following constituents during the 2006 sampling event."		The requested change has been made.	

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20.	Page 31	Based on the information presented in Table 3 and in the Final Work Plan for Basewide Groundwater Monitoring (2006), the following changes need to be made to bulleted well sampling list on page 31: for ammonium as N, remove IRPMW32 and include IRPMW04; for explosives, include IRPMW01, IRPMW04, and IRPMW08A; for nitrate/nitrite TKN, remove IRPMW32 and include IRPMW04; for picric acid, include IRPMW01, IRPMW04, and IRPMW08A; and for VOCs, include IRPMW01, IRPMW02, IRPMW24, IRPMW50A, and IRPMW50B.			The requested change has been made.
21.	Insert 1	On Insert 1, IRPMW36 is listed twice.			The requested change has been made.
22.	Insert 1	On Insert 1, IRPMW08 should be changed to IRPMW08A.			The requested change has been made.
23.	Insert 1	On Insert 1, IRPMW53 should be removed because it is indicated in the Draft Final Well Inventory Summary Report that IRPMW53 has been abandoned.			The requested change has been made.

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24.	Insert 1	Insert 1 should indicate the HWAD sewage pond versus the town of Hawthorne sewage pond. NAD01, NAD04, and NAD06 were not located during the well inventory, so therefore they should be removed from Insert 1.			The requested change has been made.
25.	Insert 2	On Insert 2, remove wells USGSWTPMW01, USGSWTPMW02, USGSWTPMW09, USGS103-41MW17, USGS103-41MW19, USGS103-41MW24, USGS103-41MW26, IRPMW54, and IRPMW55. Also remove reference to IRPMW53. Remove either USGS103-41MW14 or USGS103-41MW16, depending upon which well is identified to still exist. The Draft Final Well Inventory Report (2006) indicated that all these wells referenced above were not located.			USGS103-41MW16 was located, therefore it is included in the figure(s).
26.	Table 1	On Table 1, define the depth to water column by indicating if it is measured in feet below top of casing (toc) or feet below ground surface (bgs).			The requested change has been made. The measurement is from TOC.

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EDITORIAL COMMENTS					
27.	Table 3	For Table 3, in the notes, perimeter is misspelled as perimeter. Also, AL should be capitalized in the column descriptors, where it is written as Al.	The requested change has been made.		
28.	Table 5	Table 5 is missing the groundwater monitoring well sample results for several wells. Missing data is for wells IRPMW10, IRPMW24, IRPMW25, IRPMW28, IRPMW32, HWAAP09, DZB101-13MW8, DZB101-13MW4, DZB101-13MW5, and USGS103-41MW25. Several of these wells contain data in Table 5 for the equipment rinseate sample taken at the well, but others are completely missing from the table.	Table 5 presents analytical data for compounds detected; non-detected compounds are not listed. The analytical results for wells IRPMW10, IRPMW24, IRPMW25, IRPMW28, IRPMW32, HWAAP09, DZB101-13MW8, DZB101-13MW4, DZB101-13MW5, and USGS103-41MW25 were all reported by the laboratory as non-detect.		
29.	Table 5	On Table 5, several values for nitrate as N need to be shaded because they exceed the MCL of 10 mg/L.	The requested change has been made.		
30.	Table 6	Table 6, the nitrate as N values for IRPMW01, PRPMW04, IRPMW31, IRPMW38, IRPMW39, IRPMW40 (A [sample] and B [duplicate]), IRPMW41, IRPMW42, IRPMW43, and IRPMW44 are printed in bold type, but the values do not exceed the action level of 10 mg/L.	The nitrate as N values for these wells were unbolded.		

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### EDITORIAL COMMENTS

31.	Table 6	On Table 6, CAS# is included in the notes but not elsewhere in the table.	The reference to CAS# was removed from the notes section.
32.	Table 7	On Table 7, indicate the wells where sampling has been suspended in the appropriate box.	The requested change has been made.
33.	Appendix B	Total well depth values in Appendix B differ from those listed in Table 1. Table 1 values appear to have been taken from the Draft Final Well Inventory Summary Report (2006). Values listed in Appendix B appear to have been taken from the Final Work Plan for Basewide Groundwater Monitoring (2006). A correct set of values should be chosen for well construction data and used from this point forward.	Appendix B presents data compiled from boring logs completed over the 20 years of monitoring well installation. The depth from TOC present in Table 1 is from measured depths collected during the basewide well inventory.  For clarity, Appendix B has been removed from the report and the Appendices have been renumbered.
34.	Various	NDEP emphasizes that all PQLs must be below ALs established for HWAD. In the event that PQLs are above ALs, NDEP will require that associated monitoring wells be resampled within	There will be cases where the PQL will be above the AL. If the concentration in the sample is very high, the sample may require dilution. This causes the PQL to increase, possibly above the AL. If this occurs in the future, the text of the report will explain high

# NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Review Comments

<b>Project:</b>	Hawthorne Groundwater Monitoring				
<b>Document:</b>	Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006				
<b>Reviewer:</b>	Ms. Raquel M. Kutsch			Date: 9/7/06	Received by TTEMI: 9/29/06
<b>Reviewer:</b>	Mr. Yuen (Kee) Chen	<b>Section:</b>	CESPK-ED-GC		Received by TTEMI: 10/21/06 & 1/8/07
<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>		<b>Response</b>	
<b>EDITORIAL COMMENTS</b>					
		one month of the receipt of the laboratory report. NDEP also requests that appropriate plans be made to ensure that all wells are accessible for sampling at the time of each sampling event.		PQLs. Re-sampling of the well will not necessarily mean the PQL will be lower.	

## USACE Chemistry Review Comments

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<b>Document:</b>	Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006				
<b>Reviewer:</b>	Carleton Fong, 916-557-7513	<b>Section:</b>	CESPK-ED-GC	Date: 10/3/2006	Received by TTEMI: 10/12/2006
Comment No	Reference	Reviewer Comments	Response		
1.	Typographic and Grammatical Errors	Typographic and grammatical errors noticed throughout document. I concur with the NDEP reviewer identified errors. The contractor should correct the listed errors and have a technical editor perform a thorough review of the document.	The requested corrections have been made.		
2.	Acronyms	DDT is listed as 4,4-DDT and DDT. Please use only one acronym.	The acronym has been changed to 4,4-DDT.		
3.	Inserts 1 and 2	How do the inserts differ from the figures? If no difference, then I suggest that the inserts be identified as figures and provided in the figures tab.	The inserts are D size figures that are inserted into the sleeve of the binders. The request to include the larger inserts was made by NDEP and HWAD with USACE concurrence. They are not placed in the same location of the report as the figures. No changes to the report have been made.		
4.	Page 3, Section 2.3, 2 <sup>nd</sup> paragraph	Please explain how this paragraph relates to the section title 'Regulatory Background'. First sentence discusses how ALs will be assessed. Second sentence begins with 'As a result ...' There is no relationship between the two sentences. Please revise or remove.	Paragraph has been deleted		
5.	Page 3, Section 2.3, 3 <sup>rd</sup> paragraph	Please explain how this paragraph relates to the section title 'Regulatory Background'.	<i>The referenced text has been changed to read:</i> The suite of laboratory analyses performed under Tetra Tech's 2005 groundwater monitoring program at HWAD includes these contaminant types based on requests from NDEP.		
6.	Page 11, 2 <sup>nd</sup> paragraph	Correct reference for the 1997 Annual Ground Water Monitoring Report by Tetra Tech, Inc. should be 1998a not 1998b.	The requested correction has been made.		
7.	Page 11, Section 5.0	Text states that GW monitoring was conducted at 70 wells; however, Table 6 provides analytical data (including dry well) for 76 wells. I suspect that the difference is because Table 6 includes six pairs of A/B wells, one of which is a duplicate sample. If this is the case, please provide applicable footnote in Table 6. If not, please address.	The "B" designation for duplicate samples has been removed from Table 6 for wells with duplicate samples. Instead, immediately below the sample date, the duplicate sample has been identified as "Duplicate".		

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## USACE Chemistry Review Comments

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	<b>Section:</b>	CESPK-ED-GC	<b>Date:</b> 10/3/2006	Received by TTEMI: 10/12/2006
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8.	Page 12, 2 <sup>nd</sup> paragraph	Please verify the accuracy of the values provided for total number of wells installed and abandoned. The Well Inventory Report (April 2006) indicates 139 total wells with 31 abandoned and 27 unable to locate. How did the contractor identify 119 total wells and 38 abandoned or destroyed?	TTEMI reviewed available reports and data bases in the HWAD, USACE, and Tetra Tech document repositories. None of the repositories appear to be complete. Where it was apparent there was missing or incomplete information contained in the reviewed documents, additional documentation was requested and sometimes provided by HWAD. TTEMI then went into the field to verify well locations or existence when, there was data gaps, or inconsistent data.		
9.	Page 12, 3 <sup>rd</sup> paragraph	What is the duration for suspending sampling? Define the criteria for suspending sampling and what decisions will drive the need to resample.	<p>The term suspended was agreed upon in October 2005 meetings between HWAD, USACE and NDEP. The definition of suspended was not stated by the parties. The purpose of these meetings was to finalize the 2005 work plan for the basewide groundwater monitoring.</p> <p>The criteria were explained in detail in <i>the Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2006) and are also presented in Figure 15 of this report.</p> <p>No changes to the text of the report have been made.</p>		
10.	Page 12, 4 <sup>th</sup> and 5 <sup>th</sup> paragraph	Provide a brief explanation for why pesticide and PCB sampling is required at Well HWAAP02. In the last sentence of 4 <sup>th</sup> paragraph, change the year from 2005 to 2006. In the 5 <sup>th</sup> paragraph, should pesticides and PCBs be listed as a COC for HWAAP02?	<p>The request to include DDT as a COC and analyze only for DDT was made by HWAD based on unspecified historical activities at the site. The request was made in October 2005 meetings between HWAD, USACE, and NDEP while developing the basewide groundwater monitoring work plan.</p> <p>In the last sentence of 4<sup>th</sup> paragraph The last sentence is correct. NO change to the text has been made.</p> <p>For an explanation of the COCs please see the above discussion.</p>		
11.	Page 13, paragraphs discussing Flow Chart (Figure 15)	See comments regarding Figure 15.	<p>The text on page 13 referring to Diamond 3 has been changed to "sampling events."</p> <p>The text on page 13 referring to Diamond 6 has been changed to "sampling events."</p>		
12.	Page 14, 1 <sup>st</sup> paragraph	Add US to reference EPA 1996.	The requested correction has been made throughout the text.		

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13.	Page 14, Section 7.1, 1 <sup>st</sup> paragraph	Stated timeframe for depth-to-water (DTW) measurements do not match the dates listed on the Monitoring Well Forms (Appendix D). Several DTW measurements were taken well after December 5, 2005. Please correct.	An initial round of DTW and total depth measurements were collected from November 29 to December 2, 2005. DTW measurements were also collected prior to sampling each well. The text has been changed to clarify these events.		
14.	Page 15, 2 <sup>nd</sup> paragraph	The list of wells planned for the 2005 sampling event matched the list of wells in the Final Work Plan for Base wide Groundwater Monitoring (Tetra Tech, Inc. January 2006). For the eight wells not sampled due to inaccessibility and wet conditions, please provide corrective action.	<p>These wells include the USGS41 series wells which have been located, are scheduled to be replaced and were determined to be unsuitable for sampling. This information can be found in the <i>Draft Final Well Inventory Summary Report</i> (April 26, 2006). Access to the new wells will not be an issue in the future.</p> <p>The sentence "USGS103-41MW14 could not be located" was added to the paragraph.</p>		
15.	Page 19, Section 8.1.2 PQLs	<p>This section highlights analyte PQLs that exceed the AL and draws unnecessary attention to this topic. Due to the sensitive issue of elevated reporting limits above the AL, this section needs to be rewritten to focus more on the impact to overall data quality and usability. While recognizing that some PQLs exceeded the AL, the key concern would be on non-detect results.</p> <p>Some suggested text include: "When the PQLs for non-detected results exceeded the action level, the data were re-evaluated at the MDL to meet project sensitivity requirements. The use of MDLs for non-detect data has become standard practice and for future sampling events, all non-detects will be reported at the MDL value. Such a practice does not impact data quality or usability."</p> <p>Bullet #2 discusses elevated PQLs due to necessary sample dilution. Suggest that we include additional text to focus the reader on the high result for RDX as being the driver and that elevated PQLs/MDLs for the non-detects due to necessary dilution are common when one analyte is present at such a high concentration.</p>	<p>Additional text explaining that some non-detected results are evaluated at the MDL for groundwater monitoring has been added to Section 8.1.2. Evaluating non-detected results at the MDL may not be appropriate for potential risk assessments listed in the data quality objectives of the QAPP. However, when non-detected analytes are reported with elevated PQLs because a detected analyte was found at a high concentration, the detected analyte is normally the risk driver and the non-detected compounds are not considered chemicals of concern in the risk assessment.</p> <p>Text explaining that RDX is the driver at wells IRPMW56 and DZB101-44MW3 has been added to Bullet #2.</p> <p>Most elevated PQL problems will be resolved by requiring project laboratories to report two sets of results when one analyte of a multi-analyte chromatography analysis has a concentration above the calibration curve. One analysis should be performed at a dilution sufficient to quantify the detected analyte in the upper half of the calibration curve. The other analysis should be performed on a dilution ten times more concentrated than the first dilution. The requirement to report multiple dilutions should be discussed in the project kick off, or phase one, meeting with the laboratory, before samples are collected. This recommendation has been added to Section 10 of the report.</p>		

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	<b>Section:</b>	CESPK-ED-GC	<b>Date:</b> 10/3/2006	<b>Received by TTEMI:</b> 10/12/2006
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		<p>Much of the information presented on page 21 accurately describes the process of evaluating data to the MDL and this information can be used to address NDEP's comments regarding this issue.</p> <p>For future sampling events, I highly suggest that the contractor have the laboratory report all results at the MDL and provide the MDL values. NDEP seems to be highly concerned about reporting non-detects above the AL and may require resample affected wells.</p>			
16.	Page 20, Section 8.2 Laboratory Analytical Results	Text highlighted the fact that for several analytes, the PQLs exceeded the AL and as a result, the non-detect data were evaluated at the MDL where possible. The emphasis on PQLs that exceeded the AL may have caused more concern than necessary by NDEP. Suggest that in the future, contractor focus on the data quality and how quality of data was not compromised due to PQLs > AL.	Comment noted.		
17.	Page 22, 2 <sup>nd</sup> paragraph	The AL for both 2-amino-4,6-DNT and 4-amino-2,6-DNT should be 73 ug/L (PRG value). Please re-evaluate and correct text based on this change.	<p>The suggested PRG value of 73 ug/L is the PRG for 2, 4-DNT and 2, 6-DNT. The PRG for 2-amino-4, 6-DNT and 4-amino-2, 6-DNT has not been established.</p> <p>The AL for both 2-amino-4, 6-DNT and 4-amino-2, 6-DNT was set as 0.099 ug/L which is the PRG value for the Dinitrotoluene mixture.</p>		
18.	Page 22, 3 <sup>rd</sup> paragraph	After "Concentrations of 2-amino-4,6-DNT ..." change has to <i>have</i> .	The requested correction has been made.		
19.	Page 22, 4 <sup>th</sup> paragraph	It is not clear why the laboratory chose to run two analyses for ammonium picrate determination – methods to determine picric acid and ammonium. How are the ammonium results	Ammonium-nitrogen and picric acid have historically been reported at Hawthorne. The Statement of Work required ammonium picrate monitoring because ammonium picrate was the chemical used on site. Ammonium salts are		

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		used? Wouldn't the picric acid analysis also include the detection of the ammonium picrate? The response will help determine how to analyze for ammonium picrate for future sampling events. Most laboratories will just analyze for picric acid.		soluble in water and both ions, ammonium and picrate acid, are on the analyte list. The reported value is called "picric acid as ammonium picrate" and is calculated from the picric acid result. The ammonium result is provided to support the probability that any picric acid found on site was originally ammonium picrate.	
20.	Page 24, 2 <sup>nd</sup> paragraph	Change IRPW05A to <i>IRPMW50A</i> . The text discusses PCE data trends however, the data were not provided in the report. The contractor should provide an electronic copy of all the data so that analyte specific trends can be evaluated. Microsoft Excel would be the preferred format.		Several formats for the report were offered to and discussed with USACE in December 2005. The USACE requested TTEMI to use the same format as the <i>Annual 2003 Groundwater Monitoring Report</i> . An electronic copy of the data was included in the sleeve of the binder of the report.  The IRPMW50A correction has been made.  Groundwater analytical trends are presented in Table 6 for concentrations detected at or above ALs. This was done to minimize the size of Table 6 and to make it more presentable.	
21.	Page 25, 3 <sup>rd</sup> paragraph	The text discusses TKN data trends however, the data were not provided in the report. The contractor should provide an electronic copy of all the data so that analyte specific trends can be evaluated. Microsoft Excel would be the preferred format.		Several formats for the report were offered to and discussed with USACE in December 2005. The USACE requested TTEMI to use the same format as the <i>Annual 2003 Groundwater Monitoring Report</i> . An electronic copy of the data was included in the sleeve of the binder of the report.	
22.	Page 26, 3 <sup>rd</sup> paragraph	The text as written implies that there were positive detects for nitrite but in reality, nitrite was not detected at a level above the AL. This does not imply a positive detect. Paragraph should be re-written to focus on data adequacy. For example, although the nitrite action limit required for this project were not met for all samples, all nitrite results to date have been non-detect and based on the historical data, it is not likely that nitrite concentrations would be present between the non-detect limit and the AL.		The portion of the paragraph that discusses the 2005 sampling event has been rewritten.	
23.	Page 26, Section 8.2.4	Text implies that only DDT and PCBs are the chemicals of concern. Are we only concerned with DDT and not the complete list of pesticides? Please provide a brief		The request to include DDT as a COC and analyze only for DDT was made by HWAD based on unspecified historical activities at the site. The request was	

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		<p>explanation on why only the two listed wells are being sampled for pesticides and PCBs and why in the future, samples for pesticides and PCBs analyses will not be collected at IRPMW02 (and why at HWAAP02). Historical pesticide and PCB data were not provided in the report. The contractor should provide an electronic copy of all the data so that analyte specific trends can be evaluated. Microsoft Excel would be the preferred format.</p>	<p>made in October 2005 meetings between HWAD, USACE, and NDEP, while developing the basewide groundwater monitoring work plan.</p> <p>An electronic copy of the data was included in the sleeve of the binder of the report.</p>		
24.	Page 27, Section 9.0 Conclusions	<p>Information in this section is very similar (if not identical) to the information presented in Section 8.2. Suggest that this section focus on (1) sampling completeness and (2) significant changes between the data set collected and historical trends per analyte per well.</p>	<p>A summary of sampling completeness has been added in Section 8.4.</p> <p>Several formats for the report were offered to and discussed with USACE in December 2005. The USACE requested TTEMI to use the same format as the Annual 2003 Groundwater Monitoring Report. An electronic copy of the data was included in the sleeve of the binder of the report.</p> <p>Groundwater monitoring has not been consistently managed at HWAD over the years. Subsequently trend analysis is not practical. No basewide trend analysis have been completed to date. Only selected wells as requested by HWAD have had trend analysis done on them. It is why the 2005 work plan for basewide groundwater monitoring attempted to provide a consistent rational and approach to the long term monitoring program and to do a baseline total sampling event for the entire base.</p>		
25.	Page 30, Section 10.0 Recommendations	<p>This section should provide additional information on the key changes for the 2006 sampling frequency and analytical parameters for each well based on the 2005 data to help support the proposed recommendations.</p>	<p>There were no key changes for the sampling frequency or analytical parameters requested by NDEP, HWAD or USACE prior to the submission of the report. However, the comments for this report from NDEP did request changes to</p>		

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		<p>In Table 3, there is a column labeled '<i>Professional Judgment</i>' that is populated with either N/C or C, where N/C indicates no change from flow diagram and C indicates a change. Nearly 40% (96/243) of the sampling scheme was altered from the flow charge process based on professional judgment. The professional judgment used to make these changes should be provided in this section otherwise, the reader has no information on what thought process lead to these changes.</p> <p>The second bullet states that the project laboratory should ensure that PQLs are below the AL. This is also the contractor's responsibility and is part of the three phase QC approach.</p>	<p>sampling frequency. Justification for these changes in some cases has not been provided by NDEP. No additional text has been added to the report.</p> <p>The definition of and rational for changes to the sampling regime due to "professional judgment" are presented in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).</p> <p>All "professional judgment" decisions were made by HWAD or NDEP during the October 2005 meeting between HWAD, NDEP and USACE and are presented in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).</p>		
26. or ND EP	Contractual Graphs	<p>Contract W91238-04-F-0144, Sept 26, 2005 state that the following graphs will be provided in the annual report:</p> <ul style="list-style-type: none"> <li>• Historical water level graphs</li> <li>• Historical contaminant and water quality concentration graphs</li> <li>• Contaminant trend-time graphs</li> </ul> <p>These graphs were not provided in the annual report. The contractor should provide all contract required submissions.</p>	<p>Several formats for the report were offered to and discussed with USACE in December 2005. USACE requested TTEMI to use the same format as the Annual 2003 Groundwater Monitoring Report. The graphs are not included in the format. The format did not contain the graphs.</p>		
27.	SOW	<p>Scope includes sampling the following wells: DZB101-15MW6, DZB101-15MW7, IRPMW03, IRPMW53, IRPMW54, IRPMW55. It also include sampling all 75 wells for perchlorate. Where are these results?</p>	<p>Perchlorate analysis is not included in the final negotiated contract. Additionally it was not included in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).</p> <p>Well DZB101-15MW6/ DZB101-15MW7 is one well separated by a packer in the well. Because there is no information regarding the condition or design of the packer HWAD, NDEP and USACE determined the results of the sampling would be invalidated and requested to not have the well sampled.</p>		

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			Well IRPMW03 the well is an artesian well and was removed from the sampling program.		
			Wells IRPMW53, IRPMW54, IRPMW55 were not found during the well inventory and it is assumed that they have been abandoned.		
28.	Figure 6-14, Insert 2	Units were not consistently displaced next to values. No space between value and units. Incorrect nitrite action level listed. Need to reevaluate figures based on correct action level. Wrong footnote for action level reference. Please refer to NDEP comments regarding figures.	<p>Because results are reported in two different units (ug/L and mg/L), Figures and Inserts have the following note: "All results are in microgram per liter unless otherwise noted."</p> <p>Spaces were added between values and units, where applicable.</p> <p>Figures 6-14 and Insert 2 do not have any values listed for nitrite. Perhaps the reviewer is referring to Nitrate as N. Figures 6-14 and Insert 2 have been corrected for the correct Nitrate as N MCL action level of 10 mg/L.</p> <p>The correct footnote referring the action level for Nitrate as N is referenced on the figures and insert.</p>		
29.	Figure 15	<p>The following comments pertain to the flow chart presented as Figure 15:</p> <ul style="list-style-type: none"> <li>• Diamond 3 statements reads "Were COCs detected above ALs in greater than 30% of the <i>sampling events</i>"? Text on page 13 indicates COCs &gt;30% of the <i>samples</i>. Please clarify text or figure to identify if criteria are percentage of <i>sampling events</i> or <i>samples</i>.</li> <li>• Diamond 6 – figure states 30% of <i>sampling events</i> and text on page 13 states 30% of the <i>time</i>. Please clarify.</li> <li>• Diamond 8 – The flow chart is very difficult to understand. What would be the decision rule if</li> </ul>	<p>The logic chart was negotiated by HWAD, NDEP and USACE during the development of the 2005 basewide groundwater monitoring work plan.</p> <p>The text on page 13 referring to Diamond 3 has been changed to "sampling events."</p> <p>The text on page 13 referring to Diamond 6 has been changed to "sampling events."</p> <p>Diamond 8- the decision rule for analytes detected less than the ALs and sampled less than 5 times would be the "Professional Judgment", which historically have been decisions made by HWAD, NDEP or USACE. If these parties do not</p>		

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		<p>analyte were &lt;AL and &lt;5 sampling events? The criteria for determining the 4 year sampling interval is not clear. Text states that if analytes are detected above the AL <i>or</i> if the well has not been sampled five times, then 4-year monitoring is recommended. This does not make sense. Please clarify requirement for 4 year monitoring.</p> <p>Based on what I have read, my understanding of the decision logic is as follows:</p> <ul style="list-style-type: none"> <li>• If analyte &gt; AL and detected in &gt;30% of past events, then sample annually.</li> <li>• If analyte &gt; AL and detected in &lt;30% of past events, then sample every 2 years.</li> <li>• If analyte &lt; AL for the past 5 sampling events, then suspend sampling.</li> <li>• If analyte &lt; AL for less than 5 sampling events, then sample every 4 years.</li> </ul> <p>Is this understanding correct?</p>	<p>choose to use professional judgment then the well would go to Sampling every 4 years.</p> <p>The decision logic described by the reviewer is correct.</p>		
30.	Well IDs	<p>Recommend contractor use consistent well ID formats throughout document. Inconsistent use of dashes, A/B designators, and preceding zeros. I initially assumed that the A/B designator was used to indicate possible dual zone or nested wells and later found out that the purpose was for field duplicate distinction. Since A is also used to identify a unique well, suggest that B not be used for field duplicate sample but perhaps a FD designator.</p>	<p>The dashes in the USGS and DZB well names are the historical names of the wells (such as DZB101-44MW3) and the use of A/B designators. A change in the naming convention of the wells is not within the context of the groundwater monitoring report.</p>		
31.	Table 1	<p>10% of the table contents were verified against the monitoring well construction data (Appendix B). Following discrepancies were noted:</p> <ul style="list-style-type: none"> <li>• Table 1 Total Well Depth did not match Total Well Depth presented in Appendix B. Were Table 1</li> </ul>	<p>Appendix B presents data compiled from boring logs completed over the 20 years of monitoring well installation. The depth from TOC present in Table 1 is from measured depths collected during the basewide well inventory. For clarity, Appendix B has been removed from the report.</p>		

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Comment No	Reference	Reviewer Comments	Response		
		<p>Total Well Depths from readings collected during 2005 sampling event or from Appendix B? Please clarify and correct.</p> <ul style="list-style-type: none"> <li>• For HWAAP02, please explain how depth to water can exceed total well depth. If well is dry, suggest listing 'dry'.</li> </ul>	<p>Water level measurements for dry well will be listed as "dry". The requested changes have been made.</p>		
32.	Table 3	<p>Table is incorrectly labeled as 2005. This should be corrected to reflect the proposed sampling wells for 2006. In my opinion, this is a key table as it evaluates the 2005 data for decisions on which wells to sample and for what parameters in 2006.</p> <p>The column labeled '<i>Professional Judgment</i>' is either populated with N/C or C, where N/C indicates no change from flow diagram and C indicates a change. Nearly 40% (96/243) of the sampling scheme was altered from the flow charge process based on professional judgment. My concern is that the document provides no information on what thought process lead to all these changes from the sampling scheme. At a minimum, this level of detail must be provided in the recommendations section of the report.</p> <p>In Table 3, the recommended wells and parameters for the 2006 sampling event do not match the 2006 monitoring and analysis schedule proposed in Table 7. Please explain and correct.</p>	<p>Table 3, 2005 Basewide Groundwater Monitoring Program Criteria Data, was used to determine the wells to be sampled in 2005. This is the same table presented in the approved Final Work Plan for Basewide Groundwater Monitoring.</p> <p>The definition of and rational for changes to sampling regimes as a result of "professional judgment" are presented in <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).</p> <p>All "professional judgment" decisions were made by HWAD or NDEP during the October 2005 meeting to develop the work plan for the basewide groundwater monitoring and are presented in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).</p> <p>No changes to 2006 sampling regime based on "professional judgment" were requested prior to the draft of this report. However, several changes in the sampling regime have been requested in the NDEP comments for this report. Justification for these changes in some cases has not been provided by NDEP. No additional text has been added to the report.</p> <p>Table 3 is first discussed in Section 6.0 ("Sampling Criteria and Sample Selection 2005") to show the rationale used to develop the sampling schedule for 2005. Table 3 was also used to show the logic and rationale for determining the wells to be sampled in 2006. The result was Table 7: "2006 Groundwater Monitoring and Analysis Schedule". A summary of the recommended wells to be sampled in 2006 is presented in this table (Table 7) and discussed in Section 10.0.</p>		

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## USACE Chemistry Review Comments

<b>Project:</b>	Hawthorne Groundwater Monitoring				
<b>Document:</b>	Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006				
<b>Reviewer:</b>	Carleton Fong, 916-557-7513	<b>Section:</b>	CESPK-ED-GC	<b>Date:</b> 10/3/2006	<b>Received by TTEMI:</b> 10/12/2006
Comment No	Reference	Reviewer Comments	Response		
33.	Table 5	Listed Action Levels are incorrect for the following chloroform- no MCL, PRG 0.17 mg/L; nitrate and nitrite footnote should be 1; aminodinitrotoluenes should be 7.3 with footnote 2 (delete footnote 3). Contractor needs to correct the information in this table.	<p>The requested changes to Table 5 have been made with one exception.</p> <p>The AL for both 2-amino-4, 6-DNT and 4-amino-2, 6-DNT was set as 0.099 ug/L which is the PRG value for the Dinitrotoluene mixture.</p>		
34.	Table 6	<p>Table 6 summarizes the historical and 2005 sampling results for all wells sampled. A review was performed to verify that all wells listed in Table 2 were actually sampled for the parameters indicated. Following discrepancies were noted:</p> <ul style="list-style-type: none"> <li>• Wells IRPMW03 and USGS103-41MW01, 04, 07, 12, 14, 18, 20, and 21 were listed in Table 2 for sampling but no analytical data were listed in Table 6. IRPMW03 was listed in SOW and USGS wells were not. Please provide explanation for discrepancy.</li> <li>• Table does not list any analytical results for 2004. Should there have been a sampling event in 2004?</li> <li>• The action level for 2-amino-4,6-dinitrotoluene and 4-amino-2,6-dinitrotoluene should be corrected along with the corresponding footnote.</li> </ul>	<p>Well IRPMW03 was artesian and not sampled. Wells USGS103-41MW01, 04, 07, 12, 18, 20, and 21 were not sampled due to lack of access. Well USGS103-41MW14 was not found. Page 15, Section 7.2, last paragraph discusses these wells. A note on page 39 of Table 6 was added saying these wells were not sampled.</p> <p>Based on requests by USACE and HWAD, the work plan, QAPP, and sampling were not completed until 2005. Based on requests by USACE and HWAD there was no sampling completed in 2004.</p> <p>The PRGs are correct based on EPA Region 9 2004 PRG table. The footnote was change to read: "PRG for Dinitrotoluene mixture, EPA Region IX preliminary remediation goal for tap water."</p>		
35.	Table 7	In Table 7, the proposed 2006 monitoring and analysis schedule does not match the recommended wells and parameters for the 2006 sampling event listed in Table 3. Please explain and correct.	Please see the response to comment #32. Table 3 was used to show how the 2005 wells were selected for sampling. Table 7 lists the wells recommended for sampling in 2006. Table 7 now also includes corrections and additions per NDEP's request.		

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## USACE Chemistry Review Comments

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	<b>Section:</b>	CESPK-ED-GC	<b>Date:</b> 10/3/2006	Received by TTEMI: 10/12/2006
Comment No	Reference	Reviewer Comments	Response		
36.	Appendix A	<p>The Appendix A Action Levels for the analytes listed in Table 5 were verified against the indicated source. The following discrepancies were noted:</p> <ul style="list-style-type: none"> <li>• Chloroform – unable to verify MCL 100 ug/L</li> <li>• Nitrate – appendix should list MCL value 1000 ug/L and not PRG value.</li> <li>• 2-Amino-4,6-Dinitrotoluene and 4-Amino-2,6-Dinitrotoluene – PRG value should be 7.3 ug/L.</li> </ul> <p>Please ensure that the correct action levels are listed for ALL analytes and make the necessary corrections.</p>	<p>The requested changes to Appendix A have been made with the following exceptions:</p> <p>Nitrate – MCL value is 10 mg/L or 10,000 ug/L.</p> <p>The AL for both 2-amino-4, 6-DNT and 4-amino-2, 6-DNT was set as 0.099 ug/L which is the PRG value for the Dinitrotoluene mixture.</p>		
37.	Appendix D	<p>Inconsistent units were applied to the specific conductance values. In the future, please use consistent units for all measured parameters in order to reduce transcription errors.</p> <p>For several wells (i.e., Wells HWAAP09 and IRPMW14), comments on sampling form indicated that stabilization was not achieved after eight readings, but samples were collected. This information and any other non-conformances should be addressed in the report. Has this historically been an issue with the affected wells? Was USACE contacted and informed on decision to sample the well versus waiting an additional day to check parameters?</p> <p>For several wells, (i.e., Wells IRPMW51 and IRPMW45), comments on sampling form stating that pump was not set in screen (too depth) or was set above screen. Based on these comments, my concern is whether or not samples collected at the correct screen interval? Some additional notes should be provided to ensure the reader that a representative sample was collected from the correct well screened interval.</p>	<p>Comment noted,</p> <p><i>Final Work Plan for Basewide Groundwater Monitoring (January 26, 2005)</i> and all previous drafts state on “The groundwater is defined to be stabilized when three consecutive measurements of all six parameters meet the above requirements. If all these parameters do not stabilize by the eighth reading, the groundwater sample will be collected and it will be noted on the data sheet that the water did not fully stabilize” This methodology was agreed upon by USACE, NDEP and HWAD. The sampling protocol in the field was completed according to the work plan.</p> <p>The two wells in question were sampled according to protocol in the <i>Final Work Plan for Basewide Groundwater Monitoring (January 26, 2005)</i> Additionally, the protocol follows the EPA guidance on Low Stress Groundwater sampling. As the protocol was followed the samples are considered representative.</p>		
38.	Appendix E	The Chains of Custody (COC) were reviewed and the following discrepancies were noted:	All chain of custodies are now included with the report.		

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## USACE Chemistry Review Comments

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	<b>Section:</b>	CESPK-ED-GC	Date: 10/3/2006	Received by TTEMI: 10/12/2006
Comment No	Reference	Reviewer Comments	Response		
		<ul style="list-style-type: none"> <li>COCs were not provided for all submitted analytical data. For example, 8330, 8330M, 300.1, 351.1, and 314.0 data were provided for Wells DZB101-13MW4 and DZB101-13MW5 but no COCs were provided. Please ensure that COCs are provided for all analytical data collected. Response to comment should identify all missing COCs.</li> <li>The naming convention and procedure for collection of equipment rinsate (ER) blanks are not clearly understood. For example, ER IRPMW07-113005-WER was collected on 11/30/2005 for 8260 (and all other parameters) but the actual sample IRPMW07 for 8260 was collected on 12/02/2005. Why was the corresponding EB for 8260 different from the date the actual sample was collected? Please explain the naming convention and procedure for ER collection so that we can ensure ER were collected at the appropriate frequency.</li> <li>Review of the COCs indicates that for several wells, samples were collected on multiple dates. For example, for Well IRPMW07, 8260 was collected 12/02/2005, 300.1 on 12/13/2005, and 8330/8330M on 12/02/2005. Typical sampling sequence involves collecting all samples for each well on a single visit. Please explain in the report why there are different sampling dates. To verify that the sampling schedule was followed, the response should list all a table of each well with each sample collection date for each parameter.</li> </ul>	<p>The naming convention for all samples is presented in the Draft Quality Assurance Plan (February 18, 2005). The naming convention "ER" is used for equipment rinsate blank. Equipment rinsates are assigned the ID of the first well that is sampled after collecting the blank. For example: an equipment rinsate blank was collected February 7, 1998. The equipment from which the blank was collected was then used to sample well IRPMW27. The rinsate blank ID would be designated as IRPMW27-020798-WER. The field crew follows a list of wells to be sampled sequentially. A rinsate sample may be collected at the end of a sampling day and named for the next well to be sampled the following day. In the case of IRPMW07, the actual well was not sampled until 1 day after the rinsate sample was collected.</p> <p>The different sample dates for the different analytes was due to re-sampling of the wells because the hold times for those analytes were exceeded by the laboratory. This was due to a landslide on the road to Hawthorne which caused a courier to be late and a subsequent late delivery of the samples to the lab by FEDEX. The USACE was notified of the sampling issues and approved the re-sampling. Text has been provided to discuss the issues in Section 7.2, Page 15.</p> <p>No table will be provided.</p>		

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Comment No	Reference	Reviewer Comments	Response		
39.	Appendix F	<p>Independent third party data validation consistently identified the following data quality issues:</p> <ul style="list-style-type: none"> <li>• For TKN and ammonium, field duplicates often exceeded the RPD guidance of +/- 25 indicating inconsistent sampling and/or analytical procedures. A few outliers especially for a soil matrix are expected. However typically for an aqueous well sample, one would expect a more representative sample. Based on the data collected thus far, the contractor should implement some corrective actions to remedy the field duplicate imprecision.</li> <li>• Equipment blanks were consistently positive for ammonium, Total Kjeldahl Nitrogen, and Nitrate as N. The recommended corrective actions were provided in Section 8.1.3, page 20. Some additional text should be provided to address whether or not this has been a historical issue and why only these analyses were affected.</li> </ul>	<p>Data validation identified several instances of TKN and ammonium field duplicate RPDs above 25%. For most duplicate pairs, one result was not detected and the other was detected near the PQL or estimated below the PQL. The RPD does not provide a true measure of precision when one of the values is zero. When one value is zero, the RPD is always 200%. Also, in every instance the TKN RPD was above 25%, and all but one instance when the ammonium field duplicate pair was above 25%, the detected result was eventually qualified as not detected due to a detected concentration in the associated equipment rinse. The field duplicate imprecision appears to be caused by low concentration contamination which was also observed in the equipment rinse. The suggested corrective action pertaining to the equipment rinses should also solve the field duplicate problem.</p> <p>A comment regarding historical equipment rinses has been added to the report. It is difficult to identify the source of low concentration contamination and difficult to determine why other analyses were not affected. However, the project analyte list is limited. Apparently, the contamination source does not include chemicals on the VOC or explosives analyte list.</p>		
40.	Table 3 and 7	Please revise table to incorporate NDEP's comments. Also, identify separate to USACE which well NDEP requested is outside the scope. Without a contract modification, the contractor should not proceed with the new work.	<p>NDEP's comments have been implemented. Table 7 has been updated per NDEP's comments.</p> <p>There are no wells out of scope.</p>		
41.	Laboratory	We understand APCL is no longer a viable entity. The contractor should secure a new NDEP approved laboratory.	<p>Comment noted. The laboratory selected for the 2006 sampling is STL the laboratory is accepted by NDEP.</p>		
42.	Picric Acid Analysis	In a discussion with Tetra Tech Chemist, Noel Strum, it appears that the reporting limit for ammonium picrate will need to be revised. Noel has reviewed Table 6 of the 2005 groundwater report and noted that the conversion to ammonium picrate was not actually performed. The laboratory incorrectly reported a reporting limit of 0.9 ug/L	<p>The picric acid as ammonium picrate results listed in Table 6 have been corrected to less than 0.96 ug/L for the November/December 2005 sampling event.</p>		

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## USACE Chemistry Review Comments

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<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>		<b>Response</b>	
		for picric acid and should have reported 0.96 ug/L as the reporting limit. Noel mentioned that the listed reporting limit should be changed in the final version of this report and I concur with his assessment.			
43.		Where are the GW sampling results for the GWM under contract W91238-04-F-0144, Sept 13, 2004?		As directed by USACE and HWAD there was no sampling completed in 2004.	

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# USACE Chemistry Review Comments

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ORIGINAL COMMENTS				BACK CHECK COMMENTS	
<b>Reviewer:</b>	Carleton Fong, 916-557-7513	Date: 10/03/2006	Received by TTEMI: 10/12/2006	Reviewer Carlton Fong	Received by TTEMI: 12/21/2006 Date: 01/11/2007
Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
1.	Typographic and Grammatical Errors	Typographic and grammatical errors noticed throughout document. I concur with the NDEP reviewer identified errors. The contractor should correct the listed errors and have a technical editor perform a thorough review of the document.	The requested corrections have been made.		
2.	Acronyms	DDT is listed as 4,4-DDT and DDT. Please use only one acronym.	The acronym has been changed to 4,4-DDT		
3.	Inserts 1 and 2	How do the inserts differ from the figures? If no difference, then I suggest that the inserts be identified as figures and provided in the figures tab.	The inserts are D size figures that are inserted into the sleeve of the binders. The request to include the larger inserts was made by NDEP and HWAD with COE concurrence. They are not placed in the same location of the report as the figures.  No changes to the report have been made.	Comment (I1) Recommendation: Most contractors provide large size figures in plastic sleeves with three ring binder holes so that it can be inserted with the other figures. This prevents the figures from being misplaced and also keeps all figures together.	Response to (I1): The COE requested changes to the report and appropriate changes to the text have been made. Oversize figures previously defined as inserts have been placed with the other figures.  Please note that during the original discussion with HWAD and COE the use of plastic sleeves for oversize figures were discussed and HWAD specifically requested not to use them.
4.	Page 3, Section 2.3, 2 <sup>nd</sup> paragraph	Please explain how this paragraph relates to the	Paragraph has been deleted		

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# USACE Chemistry Review Comments

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	Date: 10/03/2006	Received by TTEMI: 10/12/2006	Reviewer Carlton Fong	Received by TTEMI: 12/21/2006 Date: 01/11/2007
Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
		section title 'Regulatory Background'. First sentence discusses how ALs will be assessed. Second sentence begins with 'As a result ...' There is no relationship between the two sentences. Please revise or remove.			
5.	Page 3, Section 2.3, 3 <sup>rd</sup> paragraph	Please explain how this paragraph relates to the section title 'Regulatory Background'.	<i>The referenced text has been changed to read:</i>  The suite of laboratory analyses performed under Tetra Tech's 2005 groundwater monitoring program at HWAD includes these contaminant types based on requests from NDEP.		
6.	Page 11, 2 <sup>nd</sup> paragraph	Correct reference for the 1997 Annual Ground Water Monitoring Report by Tetra Tech, Inc. should be 1998a not 1998b.	The requested correction has been made.		
7.	Page 11, Section 5.0	Text states that GW monitoring was conducted at 70 wells; however, Table 6 provides analytical data (including dry well) for 76 wells. I suspect that	The "B" designation for duplicate samples has been removed from Table 6 for wells with duplicate samples. Instead, immediately below the sample date, the duplicate	Comment (I2): This B designation needs to be corrected throughout document and not just here. The contractor needs to assure that this correction has been applied throughout the document.	Response to (I2): All references to the B designation for duplicates in Table 6 or the report have been made.

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		the difference is because Table 6 includes six pairs of A/B wells, one of which is a duplicate sample. If this is the case, please provide applicable footnote in Table 6. If not, please address.	sample has been identified as "Duplicate".		TTEMI followed the February 18, 2005 QAPP. Section 3.3.2, last paragraph, Example 4 indicates "Primary samples and field duplicate samples will be denoted by adding an "A" and "B" respectively to each well ID".
8.	Page 12, 2 <sup>nd</sup> paragraph	Please verify the accuracy of the values provided for total number of wells installed and abandoned. The Well Inventory Report (April 2006) indicates 139 total wells with 31 abandoned and 27 unable to locate. How did the contractor identify 119 total wells and 38 abandoned or destroyed?	TTEMI reviewed available reports and data bases in the HWAD, COE and Tetra Tech document repositories. None of the repositories appear to be complete. Where it was apparent that there was missing or incomplete information contained in the reviewed documents, additional documentation was requested and sometimes provided by HWAD. TTEMI then went into the field to verify well locations or existence when, there was data gaps, or inconsistent data.	Comment (13): Response inadequate. Funds were spent for a well inventory report in April 2006. This sampling event was in Nov 2005. Is the information in the well inventory report correct or not? What is the correct information and what information will be used for future sampling events? If the well inventory report is the most accurate, then for future sampling events, this report needs to be referenced as there appears to be much confusion on the number of actual wells at the site.	Response to (13): Please clarify how the response to the reviewer comment is inadequate.  The information has been verified as correct.  The reviewer does not specify which version of the well inventory report being referenced. Changes/corrections have been made to the draft versions of both reports. The final version of neither report has yet to be issued. TTEMI admits there were issues regarding statements in the draft reports. Those typographical errors have been corrected.

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Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
					<p>The reviewer's assumption of the timing of the work is incorrect.</p> <p>The following is offered to clarify:</p> <ul style="list-style-type: none"> <li>• The well inventory was not in TTEMI's contractual scope of work and still is not.</li> <li>• The inventory was conceived in a meeting between HWAD, COE and NDEP (TTEMI was not present).</li> <li>• COE directed TTEMI to perform a well inventory in an email dated August 22, 2007. Included in the email were minutes of an August 16, 2005 meeting. TTEMI produced on August 31, 2005 a Draft Well Inventory Work Plan, Hawthorne Army Depot, Hawthorne, Nevada.</li> <li>• TTEMI responded to comments from NDEP, HWAD and produced on October 13, 2005 the FINAL Well Inventory Work Plan, Hawthorne Army Depot, Hawthorne, Nevada.</li> </ul>

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# USACE Chemistry Review Comments

**Document:** Draft Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada, June 21, 2006

## ORIGINAL COMMENTS

## BACK CHECK COMMENTS

<b>Reviewer:</b>	Carleton Fong, 916-557-7513	Date: 10/03/2006	Received by TTEMI: 10/12/2006	<b>Reviewer Carlton Fong</b>	Received by TTEMI: 12/21/2006 Date: 01/11/2007
<b>Comment No</b>	<b>Reference</b>	<b>Reviewer Comments</b>	<b>Response</b>	<b>Backcheck Comments</b>	<b>Response to Backcheck Comments</b>
					<ul style="list-style-type: none"> <li>• In a meeting on October 14, 2005 TTEMI was directed by the COE at the request of HWAD to complete the well inventory prior to the November sampling.</li> <li>• The document search and field work was completed prior to December 2, 2005. The draft of the report was submitted February 24, 2006.</li> <li>• Comments were received and responded to and a Draft Final Report was issued April 26, 2007.</li> <li>• To date no direction has been received to complete the report.</li> </ul> <p>TTEMI agrees that future sampling events should consider the use of the Final Well Inventory Report.</p>
9.	Page 12, 3 <sup>rd</sup> paragraph	What is the duration for suspending sampling? Define the criteria for suspending sampling and what decisions will drive the need to resample.	The term suspended was agreed upon in October 2005 meetings between HWAD, COE and NDEP. The definition of suspended was not stated by the parties. The purpose of these meetings was		

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Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
			<p>to finalize the 2005 work plan for the basewide groundwater monitoring.</p> <p>The criteria were explained in detail in <i>the Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2006) and are also presented in Figure 15 of this report.</p> <p>No changes to the text of the report have been made.</p>		
10.	Page 12, 4 <sup>th</sup> and 5 <sup>th</sup> paragraph	Provide a brief explanation for why pesticide and PCB sampling is required at Well HWAAP02. In the last sentence of 4 <sup>th</sup> paragraph, change the year from 2005 to 2006. In the 5 <sup>th</sup> paragraph, should pesticides and PCBs be listed as a COC for HWAAP02?	<p>The request to include 4,4 DDT as a COC and analyze for 4,4-DDT (as the only pesticide) was made by HWAD based on unspecified historical activities at the site. HWAD also requested sampling for PCBs at this well. The request was made in October 2005 meetings between HWAD, COE, and NDEP while developing the basewide groundwater monitoring work plan.</p> <p>In the last sentence of the 4<sup>th</sup> paragraph The last sentence is correct. No change to the text has been made</p>	<p>Comment (14): Is this actually in the work plan? Was just DDT added or DDT and PCBs. The link for DDT and PCB analysis at HWAAP02 is not clear and this needs to be clear in the report. If this information is in the work plan then I recommend referencing the page in the work plan so that the reader can understand why.</p> <p>Comment (15): If pesticides and PCBs are COC for HWAAP02, then state so.</p>	<p>Response to (14): Section 2.5.1 of the Final Work Plan for the Basewide Groundwater Monitoring January 2006 states "<i>However, based on historical information, it is recommended that HWAAP02 be sampled for analysis of dichloro-di phenyl trichlorethane (DDT)</i>". TTEMI was not and has not been provided with any additional information regarding the historical use of pesticides at the site.</p> <p>The requested changes in the report have been made.</p>

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## USACE Chemistry Review Comments

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Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
			For an explanation of the COCs please see the above discussion.		<p>The 4<sup>th</sup> paragraph on page 12 clarifies the issue addressed in the comment.</p> <p>Response to (15): The reviewers comment is not clear. TTEMI believes it is a question asking if pesticides and PCB's are COCs for HWAAP02.</p> <p>Section 2.5.1, 2nd paragraph of the Final Work Plan for the Basewide Groundwater Monitoring discusses SWMU Old Bomb in which HWAAP02 is located. The work plan indicates that based on historical analytical data pesticides and PCB's are not COC's. The request to include 4,4-DDT and PCBs as analytes was made by HWAD</p> <p>A specific reference to the work plan has been placed in the text of the report.</p>

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	Date: 10/03/2006	Received by TTEMI: 10/12/2006	Reviewer Carlton Fong	Received by TTEMI: 12/21/2006 Date: 01/11/2007
Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
11.	Page 13, paragraphs discussing Flow Chart (Figure 15)	See comments regarding Figure 15.	The text on page 13 referring to Diamond 3 has been changed to "sampling events"  The text on page 13 referring to Diamond 6 has been changed to "sampling events"		
12.	Page 14, 1 <sup>st</sup> paragraph	Add <i>US</i> to reference EPA 1996.	The requested correction has been made throughout the text.		
13.	Page 14, Section 7.1, 1 <sup>st</sup> paragraph	Stated timeframe for depth-to-water (DTW) measurements do not match the dates listed on the Monitoring Well Forms (Appendix D). Several DTW measurements were taken well after December 5, 2005. Please correct.	An initial round of DTW and total depth measurements were collected from November 29 to December 2, 2005. DTW measurements were also collected prior to sampling each well. The text has been changed to clarify these events.		
14.	Page 15, 2 <sup>nd</sup> paragraph	The list of wells planned for the 2005 sampling event matched the list of wells in the Final Work Plan for Base wide Groundwater Monitoring (Tetra Tech, Inc. January 2006). For the eight wells not sampled due to inaccessibility and wet	These wells include the USGS41 series wells which have been located, are scheduled to be replaced and were determined to be unsuitable for sampling. This information can be found in the <i>Draft Final Well Inventory Summary Report</i> (April 26, 2006). Access to the new	Comment (I6): This is a great response and I recommend that this response be included in the report as it helps the reader to understand why.	Response to (I6): Comment noted. Text has been modified as requested.

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		conditions, please provide corrective action.	wells will not be an issue in the future.  The sentence "USGS103-41MW14 could not be located" was added to the paragraph.		
15.	Page 19, Section 8.1.2 PQLs	This section highlights analyte PQLs that exceed the AL and draws unnecessary attention to this topic. Due to the sensitive issue of elevated reporting limits above the AL, this section needs to be rewritten to focus more on the impact to overall data quality and usability. While recognizing that some PQLs exceeded the AL, the key concern would be on non-detect results. Some suggested text include: "When the PQLs for non-detected results exceeded the action level, the data were re-evaluated at the MDL to meet project sensitivity requirements.	Additional text explaining that some non-detected results are evaluated at the MDL for groundwater monitoring has been added to Section 8.1.2. Evaluating non-detected results at the MDL may not be appropriate for potential risk assessments listed in the data quality objectives of the QAPP. However, when non-detected analytes are reported with elevated PQLs because a detected analyte was found at a high concentration, the detected analyte is normally the risk driver and the non-detected compounds are not considered chemicals of concern in the risk assessment.	Comment (17): I do not agree with this statement and this contradicts with the comment discussed below. For many USACE projects when standard analytical methods cannot meet project specific sensitivity goals, the data are evaluated at the MDL and the laboratory reports ND at the MDL. This is a very critical topic and needs to be resolved soon as NDEP has pointed out. I strongly recommend a conference call prior to the next sampling event.  Comment (18): Include comment in the report.  Comment (19): Excellent response for elevated PQL due to sample dilution. Please confirm that the	Response to (17): Comment noted.  Response to (18): Text revised as requested.  Response to (19): Comment noted.

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		<p>The use of MDLs for non-detect data has become standard practice and for future sampling events, all non-detects will be reported at the MDL value. Such a practice does not impact data quality or usability.”</p> <p>Bullet #2 discusses elevated PQLs due to necessary sample dilution. Suggest that we include additional text to focus the reader on the high result for RDX as being the driver and that elevated PQLs/MDLs for the non-detects due to necessary dilution are common when one analyte is present at such a high concentration. Much of the information presented on page 21 accurately describes the process of evaluating data to the MDL and this information can be used to address NDEP’s comments regarding this issue.</p>	<p>Text explaining that RDX is the driver at wells IRPMW56 and DZB101-44MW3 has been added to Bullet #2.</p> <p>Most elevated PQL problems will be resolved by requiring project laboratories to report two sets of results when one analyte of a multi-analyte chromatography analysis has a concentration above the calibration curve. One analysis should be preformed at a dilution sufficient to quantify the detected analyte in the upper half of the calibration curve. The other analysis should be preformed on a dilution ten times more concentrated than the first dilution. The requirement to report multiple dilutions should be discussed in the project kick off, or phase one, meeting with the laboratory, before samples are collected. This recommendation has been added to Section 10 of the report.</p>	laboratory PQLs will meet all project required action levels. If not, what is the game plan?	

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		For future sampling events, I highly suggest that the contractor have the laboratory report all results at the MDL and provide the MDL values. NDEP seems to be highly concerned about reporting non-detects above the AL and may require resample affected wells.			
16.	Page 20, Section 8.2 Laboratory Analytical Results	Text highlighted the fact that for several analytes, the PQLs exceeded the AL and as a result, the non-detect data were evaluated at the MDL where possible. The emphasis on PQLs that exceeded the AL may have caused more concern than necessary by NDEP. Suggest that in the future, contractor focus on the data quality and how quality of data was not compromised due to PQLs > AL.	Comment noted.		
17.	Page 22, 2 <sup>nd</sup> paragraph	The AL for both 2-amino-4,6-DNT and 4-amino-2,6-DNT should be 73 ug/L	The suggested PRG value of 73 ug/L is the PRG for 2, 4-DNT and 2, 6-DNT. The	Comment (I10): USACE chemist should confirm this response to be accurate.	Response to (I10): Comment noted

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		(PRG value). Please re-evaluate and correct text based on this change.	PRG for 2-amino-4, 6-DNT and 4-amino-2, 6-DNT has not been established.  The AL for both 2-amino-4, 6-DNT and 4-amino-2, 6-DNT was set as 0.099 ug/L which is the PRG value for the Dinitrotoluene mixture.		
18.	Page 22, 3 <sup>rd</sup> paragraph	After "Concentrations of 2-amino-4,6-DNT ..." change has to <i>have</i> .	The requested correction has been made.		
19.	Page 22, 4 <sup>th</sup> paragraph	It is not clear why the laboratory chose to run two analyses for ammonium picrate determination – methods to determine picric acid and ammonium. How are the ammonium results used? Wouldn't the picric acid analysis also include the detection of the ammonium picrate? The response will help determine how to analyze for ammonium picrate for future sampling events. Most laboratories will just	Ammonium-nitrogen and picric acid have historically been reported at Hawthorne. The Statement of Work required ammonium picrate monitoring because ammonium picrate was the chemical used on site. Ammonium salts are soluble in water and both ions, ammonium and picric acid, are on the analyte list. The reported value is called "picric acid as ammonium picrate" and is calculated from the picric acid result. The ammonium result is provided	Comment (I11): Since this is a non-standard practice, I recommend that the actual analytical methods and calculations be included in the work plan for future reference as this will be an issue when a chemist is asked to review the data.  Comment (I12): How does the ammonium result support this statement? This should be a topic of discussion prior to future sampling events.	Response to (I11): Comment noted . Future work at HWAD has been awarded under a 10 year PCB contract to another firm under an AEC contract . It is unknown if the concepts presented in the Basewide Groundwater Monitoring Workplan will be used in the future.  Response to (I12): Laboratory did report Picric acid only and ammonium. The ammonium result is provided to support the probability that any picric acid found on site was originally

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		analyze for picric acid.	to support the probability that any picric acid found on site was originally ammonium picrate.		ammonium picrate."
20.	Page 24, 2 <sup>nd</sup> paragraph	Change IRPW05A to <i>IRPMW50A</i> . The text discusses PCE data trends however, the data were not provided in the report. The contractor should provide an electronic copy of all the data so that analyte specific trends can be evaluated. Microsoft Excel would be the preferred format.	Several formats for the report were offered to and discussed with COE in December 2005. The COE requested TTEMI to use the same format as the <i>Annual 2003 Groundwater Monitoring Report</i> . An electronic copy of the data was included in the sleeve of the binder of the report.  The IRPMW50A correction has been made.  Groundwater historical data are presented in Table 6 for concentrations detected at or above ALs. This was done to minimize the size of Table 6 and to make it more presentable.	Comment (I13): Recommend that USACE obtain at a minimum, an Excel dump of the data. Ideally, for USACE to have control of the data, we should have the contractor use ADR to import and validate the data so that we can import into EDMS for data storage.	Response to (I13): A database will be forwarded as required to USACE.
21.	Page 25, 3 <sup>rd</sup> paragraph	The text discusses TKN data trends however, the data were not provided in	Several formats for the report were offered to and discussed with COE in December 2005.		

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		the report. The contractor should provide an electronic copy of all the data so that analyte specific trends can be evaluated. Microsoft Excel would be the preferred format.	The COE requested TTEMI to use the same format as the <i>Annual 2003 Groundwater Monitoring Report</i> . An electronic copy of the data was included in the sleeve of the binder of the report.		
22.	Page 26, 3 <sup>rd</sup> paragraph	The text as written implies that there were positive detects for nitrite but in reality, nitrite was not detected at a level above the AL. This does not imply a positive detect. Paragraph should be re-written to focus on data adequacy. For example, although the nitrite action limit required for this project were not met for all samples, all nitrite results to date have been non-detect and based on the historical data, it is not likely that nitrite concentrations would be present between the non-detect limit and the AL.	The portion of the paragraph that discusses the 2005 sampling event has been rewritten.		

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23.	Page 26, Section 8.2.4	Text implies that only DDT and PCBs are the chemicals of concern. Are we only concerned with DDT and not the complete list of pesticides? Please provide a brief explanation on why only the two listed wells are being sampled for pesticides and PCBs and why in the future, samples for pesticides and PCBs analyses will not be collected at IRPMW02 (and why at HWAAP02). Historical pesticide and PCB data were not provided in the report. The contractor should provide an electronic copy of all the data so that analyte specific trends can be evaluated. Microsoft Excel would be the preferred format.	The request to include 4,4-DDT as a COC and analyze only for 4,4-DDT was made by HWAD based on unspecified historical activities at the site. The request was made in October 2005 meetings between HWAD, COE, and NDEP, while developing the basewide groundwater monitoring work plan.  An electronic copy of the data was included in the sleeve of the binder of the report.		
24.	Page 27, Section 9.0 Conclusions	Information in this section is very similar (if not identical) to the information presented in Section 8.2. Suggest that	A summary of sampling completeness has been added in section 8.4.		

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		<p>this section focus on (1) sampling completeness and (2) significant changes between the data set collected and historical trends per analyte per well.</p>	<p>Several formats for the report were offered to and discussed with COE in December 2005. The COE requested TTEMI to use the same format as the Annual 2003 Groundwater Monitoring Report. An electronic copy of the data was included in the sleeve of the binder of the report.</p> <p>Groundwater monitoring has not been consistently managed at HWAD over the years. Subsequently trend analysis is not practical. No basewide trend analysis have been completed to date. Only selected wells as requested by HWAD have had trend analysis done on them. It is why the 2005 work plan for basewide groundwater monitoring attempted to provide a consistent rational and approach to the long term monitoring program and to do a baseline total sampling event for the entire base.</p>		

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25.	Page 30, Section 10.0 Recommendations	<p>This section should provide additional information on the key changes for the 2006 sampling frequency and analytical parameters for each well based on the 2005 data to help support the proposed recommendations.</p> <p>In Table 3, there is a column labeled <i>'Professional Judgment'</i> that is populated with either N/C or C, where N/C indicates no change from flow diagram and C indicates a change. Nearly 40% (96/243) of the sampling scheme was altered from the flow charge process based on professional judgment. The professional judgment used to make these changes should be provided in this section otherwise, the reader has no information on what thought process lead to these changes.</p>	<p>There were no key changes for the sampling frequency or analytical parameters requested by NDEP, HWAD or COE prior to the submission of the report. However, the comments for this report from NDEP did request changes to sampling frequency. Justification for these changes in some cases has not been provided by NDEP. No additional text has been added to the report.</p> <p>The definition of and rationale for changes to the sampling regime due to "professional judgment" are presented in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).</p> <p>All "professional judgment" decisions were made by HWAD or NDEP during the October 2005 meeting between HWAD, NDEP and COE. and are presented in the <i>Final Work Plan for Basewide</i></p>	<p>Comment (I14): If USACE is planning to accept NDEP request changes as is, then this needs to be documented for future reference. I recommend that any deviations from the decision flow diagram or 'professional judgment' calls be clearly documented in the report.</p>	<p>Response to (I14): The reviewer's backcheck comments were not submitted prior to completion of the 2006 sampling. The contractor was directed by the COE as requested by HWAD or NDEP or directly from the COE to make changes to the 2006 sampling plan throughout 2006. Justification for the changes in the sampling program/logic were not provided in all cases to the contractor. Therefore the contractor can not provide justification for all the changes.</p> <p>Where possible, the given justification for changes to the sampling program will be provided. Where that justification was not provided, TTEMI will provide a citation for the document, email, comment, or telephone conversation in which TTEMI was directed without justification to make changes to the sampling plan.</p>

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		The second bullet states that the project laboratory should ensure that PQLs are below the AL. This is also the contractor's responsibility and is part of the three phase QC approach.	<i>Groundwater Monitoring</i> (January 26, 2005).	Comment (I15): Response inadequate. What is presented in the work plan are general definitions and rationales that encompass a broad range of criteria. Each change needs to be clearly presented so that the reader can follow the thought process for the change.	Response to (I15): Section 2.5.1 (pages 2-21 through 2-70 ) of the <i>Final Workplan for Basewide Groundwater Monitoring January 2006</i> presents a historical analytical discussion and rationale for sampling each well, and each COC to be sampled at each well. Each well has its own section and each COC has its own paragraph. The report presents the reason why each constituent is analyzed for each well. It also provides the rationale as provided to changes to the sampling regime due to professional judgment for each well and COC where that rationale was provided to the contractor.  The reviewers backcheck comments were not submitted prior to completion of the 2006 sampling. The contractor was directed by the COE as requested by HWAD or NDEP or directly by the COE to make changes to the 2006 sampling plan throughout 2006. Justification for the changes in the sampling

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					<p>program/logic were not provided in all cases to the contractor. Therefore, contractor can not provide justification for all the changes.</p> <p>Where possible, the given justification for changes to the sampling program will be provided. Where that justification was not provided, TTEMI will provide a citation for the document, email, comment, or telephone conversation in which TTEMI was directed without justification to make changes to the sampling plan.</p>
				<p>Comment (I16): For this report, the professional judgment calls are case specific and need to be treated as such. Simply referencing the work plan is not acceptable.</p>	<p>Response to (I16): See response to I14 and I15.</p>
26. or NDEP	Contractual Graphs	Contract W91238-04-F-0144, Sept 26, 2005 state that the following graphs	Several formats for the report were offered to and discussed with COE in December 2005. COE requested TTEMI to use	<p>Comment (I17): USACE should reconsider data deliverables as it negotiates a new contract. Concern now is what the contractor is</p>	<p>Response to (I17): Comment noted.</p>

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		will be provided in the annual report: <ul style="list-style-type: none"> <li>• Historical water level graphs</li> <li>• Historical contaminant and water quality concentration graphs</li> <li>• Contaminant trend-time graphs</li> </ul> These graphs were not provided in the annual report. The contractor should provide all contract required submissions.	the same format as the Annual 2003 Groundwater Monitoring Report. The graphs are not included in the format. The format did not contain the graphs.	contractually responsible for and what was agreed upon in a meeting.	
27.	SOW	Scope includes sampling the following wells: DZB101-15MW6, DZB101-15MW7, IRPMW03, IRPMW53, IRPMW54, IRPMW55. It also included sampling all 75 wells for perchlorate. Where are these results?	Perchlorate analysis is not included in the final negotiated contract. Additionally it was not included in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2005).  Well DZB101-15MW6/ DZB101-15MW7 is one well separated by a packer in the well. Because there is no	Comment (I18): USACE will need to define the primary documents to assess contractor performance. In other words, when there is a conflict between the contract requirements and the work plan, what has precedence?  Comment (I19): Response needs to be provided in the report. Apparently there has been much discussion between HWAD, NDEP, USACE and contractor leading to	Response to (I18): Comment noted  Response to (I19) Comment noted. Please see response to (I15).

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			<p>information regarding the condition or design of the packer HWAD, NDEP and COE determined the results of the sampling would be invalid and requested to not have the well sampled.</p> <p>Well IRPMW03 the well is an artesian well and was removed from the sampling program.</p> <p>Wells IRPMW53, IRPMW54, IRPMW55 were not found during the well inventory and it is assumed that they have been abandoned</p>	<p>undocumented decisions that are not addressed in the work plan or contract. Such decisions need to be presented in the report.</p> <p>Comment (I20): All of the responses provided to this comment should be addressed in one section of the report that addresses adequacy of the sampling plan. In other words, did we collect all the samples that were planned, and if not, why.</p>	<p>Requested changes in the text will be provided where possible. Please see response to (I14)</p> <p>Response to (I20): Section 7.7 "Summary of Field Activities" was added to the report.</p>
28.	Figure 6-14, Insert 2	Units were not consistently displaced next to values. No space between value and units. Incorrect nitrite action level listed. Need to reevaluate figures based on correct action level. Wrong footnote for action level reference.	<p>Because results are reported in two different units (ug/L and mg/L), Figures and Inserts have the following note: "All results are in microgram per liter unless otherwise noted."</p> <p>Spaces were added between values and units, where applicable.</p>	Comment (I21): Recommend listing all units on figures if multiple units are being presented.	Response to (I21): Requested changes to the figures have been made.

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		Please refer to NDEP comments regarding figures.	<p>Figures 6-14 and Insert 2 do not have any values listed for nitrite. Perhaps the reviewer is referring to Nitrate as N. Figures 6-14 and Insert 2 have been corrected for the correct Nitrate as N MCL action level of 10 mg/L.</p> <p>The correct footnote referring the action level for Nitrate as N is referenced on the figures and insert.</p>		
29.	Figure 15	<p>The following comments pertain to the flow chart presented as Figure 15:</p> <ul style="list-style-type: none"> <li>• Diamond 3 statements reads "Were COCs detected above ALs in greater than 30% of the <i>sampling events</i>"? Text on page 13 indicates COCs &gt;30% of the <i>samples</i>. Please clarify text</li> </ul>	<p>The logic chart was negotiated by HWAD, NDEP and COE during the development of the 2005 basewide groundwater monitoring work plan.</p> <p>The text on page 13 referring to Diamond 3 has been changed to "sampling events"</p> <p>The text on page 13 referring to Diamond 6 has been changed to "sampling events"</p>	<p>Comment (I22): Suggest that logic chart include text to state that professional judgment calls involves members of HWAD, NDEP, USACE, and contractor – a team agreement.</p>	<p>Response to (I22): Please see response to comment (I15). Requested changes to the text have been made.</p>

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<b>Reviewer:</b>	Carleton Fong, 916-557-7513	Date: 10/03/2006	Received by TTEMI: 10/12/2006	Reviewer <b>Carlton Fong</b>	Received by TTEMI: 12/21/2006 Date: 01/11/2007
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		<p>or figure to identify if criteria are percentage of <i>sampling events</i> or samples.</p> <ul style="list-style-type: none"> <li>• Diamond 6 – figure states 30% of <i>sampling events</i> and text on page 13 states 30% of the <i>time</i>. Please clarify.</li> <li>• Diamond 8 – The flow chart is very difficult to understand. What would be the decision rule if analyte were &lt;AL and &lt;5 sampling events? The criteria for determining the 4 year sampling interval is not clear. Text states that if analytes are detected above the AL <i>or</i> if the well has not been</li> </ul>	<p>Diamond 8- the decision rule for analytes detected less than the ALs and sampled less than 5 times would be the "Professional Judgment", which historically have been decisions made by HWAD, NDEP, or COE. If these parties do not choose to use professional judgment then the well would go to Sampling every 4 years.</p> <p>The decision logic described by the reviewer is correct.</p>		

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		<p>sampled five times, then 4-year monitoring is recommended. This does not make sense. Please clarify requirement for 4 year monitoring.</p> <p>Based on what I have read, my understanding of the decision logic is as follows:</p> <ul style="list-style-type: none"> <li>• If analyte &gt; AL and detected in &gt;30% of past events, then sample annually.</li> <li>• If analyte &gt; AL and detected in &lt;30% of past events, then sample every 2 years.</li> <li>• If analyte &lt; AL for the past 5 sampling events, then suspend sampling.</li> </ul>			

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		<ul style="list-style-type: none"> <li>• If analyte &lt; AL for less than 5 sampling events, then sample every 4 years.</li> </ul> <p>Is this understanding correct?</p>			
30.	Well IDs	Recommend contractor use consistent well ID formats throughout document. Inconsistent use of dashes, A/B designators, and preceding zeros. I initially assumed that the A/B designator was used to indicate possible dual zone or nested wells and later found out that the purpose was for field duplicate distinction. Since A is also used to identify a unique well, suggest that B not be used for field duplicate sample but perhaps a FD designator.	The dashes in the USGS and DZB well names are the historical names of the wells (such as DZB101-44MW3) and the use of A/B designators. A change in the naming convention of the wells is not within the context of the groundwater monitoring report.		
31.	Table 1	10% of the table contents were verified against the monitoring well construction data (Appendix B). Following	Appendix B presents data compiled from boring logs completed over the 20 years of monitoring well installation. The depth from TOC present	Comment (123): Response does not address comment. Total well depths should not change. Depth to the bottom reading may change. Please address comment.	Response to (123): Text has been changed as requested. A column showing "Constructed Well Depths" was added To Table 1.

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		discrepancies were noted: <ul style="list-style-type: none"> <li>• Table 1 Total Well Depth did not match Total Well Depth presented in Appendix B. Were Table 1 Total Well Depths from readings collected during 2005 sampling event or from Appendix B? Please clarify and correct.</li> <li>• For HWAAP02, please explain how depth to water can exceed total well depth. If well is dry, suggest listing 'dry'.</li> </ul>	in Table 1 is from measured depths collected during the basewide well inventory. For clarity, Appendix B has been removed from the report.  Water level measurements for dry well will be listed as "dry". The requested changes have been made.		
32.	Table 3	Table is incorrectly labeled as 2005. This should be corrected to reflect the proposed sampling wells for 2006. In my opinion, this is a key table as it	Table 3, 2005 Basewide Groundwater Monitoring Program Criteria Data, was used to determine the wells to be sampled in 2005. This is the same table presented in the	Comment (I24): This table presents the proposed sampling wells for 2006 but this is not clear from the title of the table. Recommend that a title be selected that clearly identifies the purpose of the table	Response to (I24): Table 3 is labeled correctly; no changes in the text have been made.

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		<p>evaluates the 2005 data for decisions on which wells to sample and for what parameters in 2006.</p> <p>The column labeled <i>'Professional Judgment'</i> is either populated with N/C or C, where N/C indicates no change from flow diagram and C indicates a change. Nearly 40% (96/243) of the sampling scheme was altered from the flow charge process based on professional judgment. My concern is that the document provides no information on what thought process lead to all these changes from the sampling scheme. At a minimum, this level of detail must be provided in the recommendations section of the report.</p> <p>In Table 3, the recommended wells and parameters for the 2006 sampling event do not match the 2006 monitoring</p>	<p>approved Final Work Plan for Basewide Groundwater Monitoring.</p> <p>The definition of and rational for changes to sampling regimes as a result of "professional judgment" are presented in <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2006).</p> <p>All "professional judgment" decisions were made by HWAD or NDEP during the October 2005 meeting to develop the work plan for the basewide groundwater monitoring and are presented in the <i>Final Work Plan for Basewide Groundwater Monitoring</i> (January 26, 2006).</p> <p>No changes to 2006 sampling regime based on "professional judgment" were requested prior to the draft of this report. However, several changes in</p>	<p>Comment (I25): See prior backcheck comment.</p> <p>Comment (I26): I am not requesting changes. I am requesting a reason or rationale for the recommended changes based on professional judgment. Simply referencing the work plan is not an adequate respond since the text is generic and broad.</p> <p>Comment (I27): For 2005 or 2006? These tables are important and it is not clearly understood by this reviewer and NDEP as indicated by their comment. USACE should address Tables 3 and 7 with NDEP and HWAD to ensure that the information presented is clearly understood</p> <p>Comment (I28) I still do not see the correlation between Table 3 and Table 7. Request USACE establish a conference call to address.</p>	<p>Response to (I25): Reviewer does not specify which backcheck comment is being referenced</p> <p>Response to (I26): See response to comment (I15)</p> <p>Response to (I27): Comment noted. Please note the 2006 sampling was completed prior to receipt of the backcheck comments. NDEP had no issues with the response to comments.</p> <p>Response to (I28): Comment noted.</p>

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		and analysis schedule proposed in Table 7. Please explain and correct.	<p>the sampling regime have been requested in the NDEP comments for this report. Justification for these changes in some cases has not been provided by NDEP. No additional text has been added to the report.</p> <p>Table 3 is first discussed in Section 6.0 ("Sampling Criteria and Sample Selection 2005") to show the rationale used to develop the sampling schedule for 2005. Table 3 was also used to show the logic and rationale for determining the wells to be sampled in 2006. The result was Table 7: "2006 Groundwater Monitoring and Analysis Schedule". A summary of the recommended wells to be sampled in 2006 is presented in this table (Table 7) and discussed in Section 10.0.</p>		

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33.	Table 5	Listed Action Levels are incorrect for the following chloroform- no MCL, PRG 0.17 mg/L; nitrate and nitrite footnote should be 1; aminodinitrotoluenes should be 7.3 with footnote 2 (delete footnote 3). Contractor needs to correct the information in this table.	The requested changes to Table 5 have been made with one exception  The AL for both 2-amino-4, 6-DNT and 4-amino-2, 6-DNT was set as 0.099 ug/L which is the PRG value for the Dinitrotoluene mixture.		
34.	Table 6	Table 6 summarizes the historical and 2005 sampling results for all wells sampled. A review was performed to verify that all wells listed in Table 2 were actually sampled for the parameters indicated. Following discrepancies were noted: <ul style="list-style-type: none"> <li>• Wells IRPMW03 and USGS103-41MW01, 04, 07, 12, 14, 18, 20, and 21 were listed in Table 2 for sampling but no analytical data were listed in</li> </ul>	Well IRPMW03 was artesian and not sampled. Wells USGS103-41MW01, 04, 07, 12, 18, 20, and 21 were not sampled due to lack of access. Well USGS103-41MW14 was not found. Page 15, Section 7.2, last paragraph discusses these wells. A noted on page 39 of Table 6 was added saying these wells were not sampled.  Based on requests by COE and HWAD, the workplan, QAPP, and sampling were not completed until 2005. Based on requests by COE and		

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		<p>Table 6. IRPMW03 was listed in SOW and USGS wells were not. Please provide explanation for discrepancy.</p> <ul style="list-style-type: none"> <li>• Table does not list any analytical results for 2004. Should there have been a sampling event in 2004?</li> <li>• The action level for 2-amino-4,6-dinitrotoluene and 4-amino-2,6-dinitrotoluene should be corrected along with the corresponding footnote.</li> </ul>	<p>HWAD there was no sampling completed in 2004.</p> <p>The PRGs are correct based on EPA Region 9 2004 PRG table. The footnote was change to read: "PRG for Dinitrotoluene mixture, EPA Region IX preliminary remediation goal for tap water."</p>		
35.	Table 7	In Table 7, the proposed 2006 monitoring and analysis schedule does not match the recommended wells and parameters for the 2006 sampling event	Please see the response to comment #32. Table 3 was used to show how the 2005 wells were selected for sampling. Table 7 lists the wells recommended for	Comment (I29): If Table 3 was used to show how 2005 wells were selected, then shouldn't be another Table 3 for 2006? See prior backcheck comments	Response to (I29): The reviewers comment is not clear. TTEMI believes the reviewer is asking a rhetorical question: "If Table 3 was used to show how 2005 wells were selected, then

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		listed in Table 3. Please explain and correct.	sampling in 2006. Table 7 now also includes corrections and additions per NDEP's request.		shouldn't there be another Table 3 for 2006? See prior backcheck comments".  Table 3 shows selection criteria used for both 2005 and 2006 sampling. The results of selection criteria for 2006 are documented in Table 7.
36.	Appendix A	<p>The Appendix A Action Levels for the analytes listed in Table 5 were verified against the indicated source. The following discrepancies were noted:</p> <ul style="list-style-type: none"> <li>• Chloroform – unable to verify MCL 100 ug/L</li> <li>• Nitrate – appendix should list MCL value 1000 ug/L and not PRG value.</li> <li>• 2-Amino-4,6-Dinitrotoluene and 4-Amino-2,6-Dinitrotoluene – PRG value should be 7.3 ug/L.</li> </ul>	<p>The requested changes to Appendix A have been made with the following exceptions:</p> <p>Nitrate – MCL value is 10 mg/L or 10,000 ug/L.</p> <p>The AL for both 2-amino-4, 6-DNT and 4-amino-2, 6-DNT was set as 0.099 ug/L which is the PRG value for the Dinitrotoluene mixture</p>	Comment (I30): USACE should verify all PRGS addressed in this response to comment.	Response to (I30): Comment noted.

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		Please ensure that the correct action levels are listed for ALL analytes and make the necessary corrections.			

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37.	Appendix D	<p>Inconsistent units were applied to the specific conductance values. In the future, please use consistent units for all measured parameters in order to reduce transcription errors.</p> <p>For several wells (i.e., Wells HWAAP09 and IRPMW14), comments on sampling form indicated that stabilization was not achieved after eight readings, but samples were collected. This information and any other non-conformances should be addressed in the report. Has this historically been an issue with the affected wells? Was USACE contacted and informed on decision to sample the well versus waiting an additional day to check parameters?</p> <p>For several wells, (i.e., Wells IRPMW51 and IRPMW45), comments on</p>	<p>Comment noted.</p> <p><i>Final Work Plan for Base wide Groundwater Monitoring (January 26, 2006)</i> and all previous drafts state on "The groundwater is defined to be stabilized when three consecutive measurements of all six parameters meet the above requirements. If all these parameters do not stabilize by the eighth reading, the groundwater sample will be collected and it will be noted on the data sheet that the water did not fully stabilize" This methodology was agreed upon by COE, NDEP, and HWAD. The sampling protocol in the field was completed according to the work plan.</p> <p>The two wells in question</p>		

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		sampling form stating that pump was not set in screen (too deep) or was set above screen. Based on these comments, my concern is whether or not samples collected at the correct screen interval? Some additional notes should be provided to ensure the reader that a representative sample was collected from the correct well screened interval.	were sampled according to protocol in the <i>Final Work Plan for Base wide Groundwater Monitoring (January 26, 2006)</i> . Additionally, the protocol follows the EPA guidance on Low Stress Groundwater sampling. As the protocol was followed the samples are considered representative.		
38.	Appendix E	The Chains of Custody (COC) were reviewed and the following discrepancies were noted: <ul style="list-style-type: none"> <li>• COCs were not provided for all submitted analytical data. For example, 8330, 8330M, 300.1, 351.1, and 314.0 data were provided for Wells DZB101-13MW4 and DZB101-13MW5</li> </ul>	All chain of custodies are now included with the report.  The naming convention for all samples is presented in the Draft Quality Assurance Plan (February 18, 2005). The naming convention "ER" is used for equipment rinsate blank. Equipment rinsates are assigned the ID of the first well that is sampled after collecting the blank. For example: an equipment rinsate blank was collected February		

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		<p>but no COCs were provided. Please ensure that COCs are provided for all analytical data collected. Response to comment should identify all missing COCs.</p> <ul style="list-style-type: none"> <li>• The naming convention and procedure for collection of equipment rinsate (ER) blanks are not clearly understood. For example, ER IRPMW07-113005-WER was collected on 11/30/2005 for 8260 (and all other parameters) but the actual sample IRPMW07 for 8260 was</li> </ul>	<p>7, 1998. The equipment from which the blank was collected was then used to sample well IRPMW27. The rinsate blank ID would be designated as IRPMW27-020798-WER. The field crew follows a list of wells to be sampled sequentially. A rinsate sample may be collected at the end of a sampling day and named for the next well to be sampled the following day. In the case of IRPMW07, the actual well was not sampled until 1 day after the rinsate sample was collected.</p> <p>The different sample dates for the different analytes was due to re-sampling of the wells because the hold times for those analytes were exceeded by the laboratory. This was due to a landslide on the road to Hawthorne which caused a courier to be late and a subsequent late delivery of the samples to the lab by FEDEX. The COE was notified of the</p>		

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		<p>collected on 12/02/2005. Why was the corresponding EB for 8260 different from the date the actual sample was collected? Please explain the naming convention and procedure for ER collection so that we can ensure ER were collected at the appropriate frequency.</p> <ul style="list-style-type: none"> <li>• Review of the COCs indicates that for several wells, samples were collected on multiple dates. For example, for Well IRPMW07, 8260 was collected 12/02/2005, 300.1 on 12/13/2005,</li> </ul>	<p>sampling issues and approved the re-sampling. Text has been provided to discuss the issues in Section 7.2, Page 15.</p> <p>No table will be provided.</p>		

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		and 8330/8330M on 12/02/2005. Typical sampling sequence involves collecting all samples for each well on a single visit. Please explain in the report why there are different sampling dates. To verify that the sampling schedule was followed, the response should list all a table of each well with each sample collection date for each parameter.			
39.	Appendix F	Independent third party data validation consistently identified the following data quality issues: <ul style="list-style-type: none"> <li>• For TKN and ammonium, field duplicates often exceeded the RPD guidance of</li> </ul>	Data validation identified several instances of TKN and ammonium field duplicate RPDs above 25%. For most duplicate pairs, one result was not detected and the other was detected near the PQL or estimated below the PQL. The RPD does not provide a		

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		<p>+/- 25 indicating inconsistent sampling and/or analytical procedures. A few outliers especially for a soil matrix are expected. However typically for an aqueous well sample, one would expect a more representative sample. Based on the data collected thus far, the contractor should implement some corrective actions to remedy the field duplicate imprecision.</p> <ul style="list-style-type: none"> <li>• Equipment blanks were consistently positive for ammonium, Total</li> </ul>	<p>true measure of precision when one of the values is zero. When one value is zero, the RPD is always 200%. Also, in every instance the TKN RPD was above 25%, and all but one instance when the ammonium field duplicate pair was above 25%, the detected result was eventually qualified as not detected due to a detected concentration in the associated equipment rinsate. The field duplicate imprecision appears to be caused by low concentration contamination which was also observed in the equipment rinsate. The suggested corrective action pertaining to the equipment rinsates should also solve the field duplicate problem.</p> <p>A comment regarding historical equipment rinsates has been added to the report. It is difficult to identify the source of low concentration contamination and difficult to</p>		

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		Kjehldahl Nitrogen, and Nitrate as N. The recommended corrective actions were provided in Section 8.1.3, page 20. Some additional text should be provided to address whether or not this has been a historical issue and why only these analyses were affected.	determine why other analyses were not affected. However, the project analyte list is limited. Apparently, the contamination source does not include chemicals on the VOC or explosives analyte list.		
40.	Table 3 and 7	Please revise table to incorporate NDEP's comments. Also, identify separate to COE which well NDEP requested is outside the scope. Without a contract modification, the contractor should not proceed with the new work.	NDEP's comments have been implemented. Table 7 has been updated per NDEP's comments.  There are no wells out of scope.		
41.	Laboratory	We understand APCL is no longer a viable entity. The	Comment noted. The laboratory selected for the	Comment (I31) Is this STL Sacto? USACE should request self	Response to (I31): All Samples were submitted to STL-Denver,

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ORIGINAL COMMENTS				BACK CHECK COMMENTS	
Reviewer:	Carleton Fong, 916-557-7513	Date: 10/03/2006	Received by TTEMI: 10/12/2006	Reviewer Carlton Fong	Received by TTEMI: 12/21/2006 Date: 01/11/2007
Comment No	Reference	Reviewer Comments	Response	Backcheck Comments	Response to Backcheck Comments
		contractor should secure a new NDEP approved laboratory.	2006 sampling is STL the laboratory is accepted by NDEP.	declaration and perhaps audit (desktop and/or on-site) the laboratory.	except for the resampling of IRPMW02 due to the lab missing the hold time for Nitrate-N and Nitrite-N. This sample was submitted to STL-Sacramento.
42.	Picric Acid Analysis	In a discussion with Tetra Tech Chemist, Noel Strum, it appears that the reporting limit for ammonium picrate will need to be revised. Noel has reviewed Table 6 of the 2005 groundwater report and noted that the conversion to ammonium pirate was not actually performed. The laboratory incorrectly reported a reporting limit of 0.9 ug/L for picric acid and should have reported 0.96 ug/L as the reporting limit. Noel mentioned that the listed reporting limit should be changed in the final version of this report and I concur with his assessment.	The picric acid as ammonium picrate results listed in Table 6 have been corrected to less than 0.96 ug/L for the November/December 2005 sampling event.		

Action Codes: A - Accepted/Concur

N - Non-Concur D - A

Deferred

W - Withdrawn

PREVIOUS EDITIONS OF THIS FC ARE OBSOLETE

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43.		Where are the GW sampling results for the GWM under contract W91238-04-F-0144, Sept 13, 2004?	As directed by COE and HWAD there was no sampling completed in 2004.		

Action Codes: A – Accepted/Concur    N – Non-Concur    D – Action Deferred    W – Withdrawn

**ATTACHMENT 1**  
**RAW ANALYTICAL DATA (2005)**  
**(PROVIDED ON CD)**

RAW ANALYTICAL DATA  
ANNUAL 2005 GROUNDWATER MONITORING  
HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

labid	sdgnum	smptype	clientsid_a	matrix	sampdate	analygrp_a	anlymeth	labcode	analyte	replim	result	qual	units	extdate	anlydate	casno	comment
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	630206	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	71558	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	79345	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	79005	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	75343	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/08/05	12/08/05	75354	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/08/05	12/08/05	563586	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	87618	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/08/05	12/08/05	96184	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	120821	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	106934	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/08/05	12/08/05	95501	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	107062	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	78875	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/08/05	12/08/05	108678	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	541731	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	142289	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-DICHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	106467	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	594207	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,4-DICHLOROPROPANE	2	2	U	UG/L	12/08/05	12/08/05	95498	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/08/05	12/08/05	106434	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/08/05	12/08/05	99876	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/08/05	12/08/05	71432	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/08/05	12/08/05	108861	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/08/05	12/08/05	74975	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/08/05	12/08/05	75274	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/08/05	12/08/05	75252	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/08/05	12/08/05	74839	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/08/05	12/08/05	56235	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/08/05	12/08/05	108907	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	75003	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/08/05	12/08/05	67663	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/08/05	12/08/05	74873	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/08/05	12/08/05	158592	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/08/05	12/08/05	10081015	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/08/05	12/08/05	124481	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/08/05	12/08/05	96128	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/08/05	12/08/05	74953	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/08/05	12/08/05	75718	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/08/05	12/08/05	75092	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	100414	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/08/05	12/08/05	87683	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	IISOPROPYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	98828	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/08/05	12/08/05	103833	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/08/05	12/08/05	1634044	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	104518	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	103651	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/08/05	12/08/05	91203	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/08/05	12/08/05	95476	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	135988	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/08/05	12/08/05	100425	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/08/05	12/08/05	98066	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/08/05	12/08/05	127184	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/08/05	12/08/05	108883	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/08/05	12/08/05	156605	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/08/05	12/08/05	10061028	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/08/05	12/08/05	79016	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/08/05	12/08/05	75694	
05-4966-15	WAB04	ORIG	TB112905	WATER	11/28/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/08/05	12/08/05	75014	
05-4901-1	WAB01	ORIG	IRPMW01-112905-W	WATER	11/29/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.012	0.9	U	UG/L	12/08/05	12/08/05	88891	
05-4901-1	WAB01	ORIG	IRPMW01-112905-W	WATER	11/29/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.20	U	MG/L	12/02/05	12/02/05	7664417	b
05-4901-1	WAB01	ORIG	IRPMW01-112905-W	WATER	11/29/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.16							

RAW ANALYTICAL DATA  
ANNUAL 2005 GROUNDWATER MONITORING  
HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99354
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99650
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	118967
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	121142
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	606202
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/06/05	12/07/05	35572782
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	88722
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99081
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/06/05	12/07/05	18406510
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99990
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/06/05	12/07/05	2691410
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	98953
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/06/05	12/07/05	121824
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/06/05	12/07/05	479458
05-4901-5	WAB01	ORIG	IRPMW05-112905-WER	WATER	11/29/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.34		MG/L	12/02/05	12/02/05	7727379
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	630206
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	71556
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	79345
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	79005
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	75343
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	75354
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	563586
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/05/05	12/05/05	87616
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	96184
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/05/05	12/05/05	120821
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	95636
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/05/05	12/05/05	106934
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	95501
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	107062
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	78875
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	108678
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/05/05	12/05/05	541731
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	142289
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/05/05	12/05/05	106467
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	594207
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/05/05	12/05/05	95498
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/05/05	12/05/05	106434
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/05/05	12/05/05	99876
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/05/05	12/05/05	71432
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/05/05	12/05/05	108861
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74975
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75274
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/05/05	12/05/05	75252
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74839
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/05/05	12/05/05	56235
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	108907
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	75003
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/05/05	12/05/05	67663
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74873
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/05/05	12/05/05	156592
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	10061015
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	124481
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/05/05	12/05/05	96128
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74953
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75718
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75092
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	100414
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/05/05	12/05/05	87683
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	98828
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/05/05	12/05/05	103833
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/05/05	12/05/05	1634044
05-4966-3	WAB04	ORIG	IRPMW01-112905-W	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U				



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05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/05/05	12/05/05	75252	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74839	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/05/05	12/05/05	56235	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	108907	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/05/05	12/05/05	75003	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	67663	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/05/05	12/05/05	156592	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	10061015	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	124481	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/05/05	12/05/05	86128	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74953	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75718	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75092	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	100414	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/05/05	12/05/05	87683	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	86828	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/05/05	12/05/05	108383	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/05/05	12/05/05	1634044	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	104518	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	103651	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/05/05	12/05/05	91203	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/05/05	12/05/05	85476	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	135988	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/05/05	12/05/05	100425	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	98066	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/05/05	12/05/05	127184	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/05/05	12/05/05	108883	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/05/05	12/05/05	156605	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	10061026	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/05/05	12/05/05	79016	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75694	
05-4966-7	WAB04	ORIG	IRPMW05-112905-WER	WATER	11/29/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/05/05	12/05/05	75014	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.012	0.9	U	UG/L	12/08/05	12/08/05	88891	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.11	U	MG/L	12/02/05	12/02/05	7664417	b
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.2	0.20	J	MG/L	12/01/05	12/01/05	14787558	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.25	0.25	U	MG/L	12/01/05	12/01/05	7727379	g
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99354	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99650	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	118967	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	121142	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	606202	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/06/05	12/07/05	35572782	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	88722	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99081	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/06/05	12/07/05	19406510	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99990	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/06/05	12/07/05	2691410	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	98953	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/06/05	12/07/05	121824	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/06/05	12/07/05	479458	
05-4924-1	WAB02	ORIG	IRPMW06-113005-W	WATER	11/30/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.34	U	MG/L	12/02/05	12/02/05	7727379	b
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.012	0.9	U	UG/L	12/08/05	12/08/05	88891	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.48	U	MG/L	12/02/05	12/02/05	7664417	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.04	0.029	J	MG/L	12/01/05	12/01/05	14797558	g
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.05	0.05	U	MG/L	12/01/05	12/01/05	7727379	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99354	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99650	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	118967	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	121142	
05-4924-2	WAB02	ORIG	IRPMW07-113005-WER	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	606	

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05-4924-6	WAB02	ORIG	USGS10341MW25113005W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99990
05-4924-6	WAB02	ORIG	USGS10341MW25113005W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/06/05	12/07/05	2691410
05-4924-6	WAB02	ORIG	USGS10341MW25113005W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	89953
05-4924-6	WAB02	ORIG	USGS10341MW25113005W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/06/05	12/07/05	121824
05-4924-6	WAB02	ORIG	USGS10341MW25113005W	WATER	11/30/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/06/05	12/07/05	479458
05-4924-6	WAB02	ORIG	USGS10341MW25113005W	WATER	11/30/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.49	U	MG/L	12/02/05	12/02/05	7727379
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	630206
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	71556
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	79345
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	79005
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	75343
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/06/05	12/06/05	75354
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	563586
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	87618
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	96184
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	120821
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	95636
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/06/05	12/06/05	106934
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	95501
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	107062
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	78875
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	108678
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	541731
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	142289
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	106467
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	594207
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/06/05	12/06/05	95498
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/06/05	12/06/05	106434
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/06/05	12/06/05	99876
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/06/05	12/06/05	71432
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/06/05	12/06/05	108861
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74975
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	75274
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/06/05	12/06/05	75252
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74839
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/06/05	12/06/05	56235
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	108907
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	75003
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/06/05	12/06/05	87663
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74873
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/06/05	12/06/05	156592
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	10061015
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	124481
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/06/05	12/06/05	96128
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74953
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	75718
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	75092
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	100414
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/06/05	12/06/05	87683
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	98828
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/06/05	12/06/05	103833
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/06/05	12/06/05	1634044
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	104518
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	103651
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/06/05	12/06/05	91203
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/06/05	12/06/05	95476
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	135988
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/06/05	12/06/05	100425
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	98066
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/06/05	12/06/05	127184
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/06/05	12/06/05	108883
05-4966-10	WAB04	ORIG	IRPMW09-113005-W	WATER	11/30/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/06/05	12/06/05	156805





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05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75092
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	100414
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/05/05	12/05/05	87683
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	98828
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/05/05	12/05/05	108383
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/05/05	12/05/05	1634044
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	104518
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	103651
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/05/05	12/05/05	91203
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/05/05	12/05/05	95476
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	135988
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/05/05	12/05/05	100425
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	98066
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/05/05	12/05/05	127184
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/05/05	12/05/05	108883
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/05/05	12/05/05	156605
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	10061028
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/05/05	12/05/05	79016
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75694
05-4966-1	WAB04	ORIG	HWAAP09-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/05/05	12/05/05	75014
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.012	0.9	U	UG/L	12/08/05	12/08/05	88891
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	UG/L	12/06/05	12/06/05	7664417
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99354
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99650
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	118967
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	121142
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	606202
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/06/05	12/07/05	35572782
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	88722
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99081
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/06/05	12/07/05	19406510
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99990
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/06/05	12/07/05	1189410
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	98953
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDH	0.25	0.25	U	UG/L	12/06/05	12/07/05	121824
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/06/05	12/07/05	479458
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.14	U	UG/L	12/06/05	12/06/05	7727379
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	630208
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	71556
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	79345
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	79005
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	75343
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	75354
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	563586
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	87616
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	96184
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	120821
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	95636
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/06/05	12/06/05	106934
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	95501
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	107062
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	78875
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	108678
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	541731
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	142289
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	106467
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	594207
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/06/05	12/06/05	95498
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/06/05	12/06/05	106434
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/06/05	12/06/05	99876
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/06/05	12/06/05	71432
05-4966-12	WAB04	ORIG	IRPMW14A-120105-W	WATER	12/01/05											

RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/06/05	12/06/05	75252	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74839	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/06/05	12/06/05	56235	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/06/05	12/06/05	108907	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	75003	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/06/05	12/06/05	67663	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74873	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/06/05	12/06/05	156592	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	10061015	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	124481	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/06/05	12/06/05	96126	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/06/05	12/06/05	74953	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	75718	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	75092	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	100414	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/06/05	12/06/05	87683	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	98828	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/06/05	12/06/05	108383	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/06/05	12/06/05	1634044	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	104518	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	103651	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/06/05	12/06/05	91203	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/06/05	12/06/05	95478	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	135988	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/06/05	12/06/05	100425	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/06/05	12/06/05	88066	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	0.6	J	UG/L	12/06/05	12/06/05	127184	g
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/06/05	12/06/05	108883	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/06/05	12/06/05	156605	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	10061026	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/06/05	12/06/05	79016	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/06/05	12/06/05	75694	
05-4966-13	WAB04	ORIG	IRPMW14B-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/06/05	12/06/05	75014	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.012	0.9	U	UG/L	12/06/05	12/06/05	88891	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.60	MG/L	12/06/05	12/06/05	7664417		
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.04	0.020	J	MG/L	12/03/05	12/03/05	14797558	gh
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.05	0.05	UJ	MG/L	12/03/05	12/03/05	7727379	h
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/06/05	12/06/05	99354	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/06/05	12/06/05	99650	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/06/05	12/06/05	118967	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/06/05	121142	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/06/05	606202	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/06/05	12/06/05	35572782	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/06/05	99081	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/06/05	99081	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/06/05	12/06/05	19406510	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/06/05	99990	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/06/05	12/06/05	2691410	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/06/05	12/06/05	98953	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDx	0.25	0.25	U	UG/L	12/06/05	12/06/05	121824	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/06/05	12/06/05	479458	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.87	MG/L	12/06/05	12/06/05	7727379		
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	830208	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	71556	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	78345	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	79005	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/06/05	12/06/05	75343	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/06/05	12/06/05	75354	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPANE	2	2	U	UG/L	12/06/05	12/06/05	563586	
05-4966-14	WAB04	ORIG	IRPMW15-120105-WER	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12			

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05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	95501
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	107062
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	78875
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	108678
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	541731
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	142289
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	106467
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/05/05	12/05/05	594207
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/05/05	12/05/05	95498
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/05/05	12/05/05	106434
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/05/05	12/05/05	99876
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/05/05	12/05/05	71432
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/05/05	12/05/05	108861
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74975
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75274
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/05/05	12/05/05	75252
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74839
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/05/05	12/05/05	56235
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/05/05	12/05/05	108907
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/05/05	12/05/05	75003
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/05/05	12/05/05	67663
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74873
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/05/05	12/05/05	156592
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	10061015
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	124481
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/05/05	12/05/05	96128
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/05/05	12/05/05	74953
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75718
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75092
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	100414
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/05/05	12/05/05	67683
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	98828
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/05/05	12/05/05	108383
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/05/05	12/05/05	1634044
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	104518
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	103651
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/05/05	12/05/05	91203
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/05/05	12/05/05	95476
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	135988
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/05/05	12/05/05	100425
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/05/05	12/05/05	98066
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/05/05	12/05/05	127184
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/05/05	12/05/05	108883
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/05/05	12/05/05	156605
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/05/05	12/05/05	10081026
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/05/05	12/05/05	79016
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/05/05	12/05/05	75694
05-4966-2	WAB04	ORIG	HWAAP10-120105-W	WATER	12/01/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/05/05	12/05/05	75014
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	630206
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	71556
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	79345
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	79005
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	75343
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	75354
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/07/05	12/07/05	563586
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	87616
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/07/05	12/07/05	96184
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROETHENE	2	2	U	UG/L	12/07/05	12/07/05	120821
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	95636
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/07/05	12/07/05	106934
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	95501
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	107062
05-4965-1	WAB03	ORIG	IRPMW07-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/07/05		



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05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/07/05	12/07/05	10061015
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	124481
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/07/05	12/07/05	96128
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/07/05	12/07/05	74953
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	75718
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	75092
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	100414
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBTADIENE	2	2	U	UG/L	12/07/05	12/07/05	87683
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	98828
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/07/05	12/07/05	108383
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/07/05	12/07/05	1634044
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	104518
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	103651
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/07/05	12/07/05	91203
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/07/05	12/07/05	95476
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	135988
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/07/05	12/07/05	100425
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	98066
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/07/05	12/07/05	127184
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/07/05	12/07/05	108883
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/07/05	12/07/05	156605
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/07/05	12/07/05	10061028
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/07/05	12/07/05	79016
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	75694
05-4965-4	WAB03	ORIG	IRPMW16-120205-WER	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/07/05	12/07/05	75014
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.012	0.9	U	UG/L	12/08/05	12/08/05	88891
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/06/05	12/06/05	7684417
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.16	8.9	U	MG/L	12/03/05	12/03/05	14787558
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.2	0.2	U	MG/L	12/03/05	12/03/05	7727379
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99354
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	99650
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	118967
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	121142
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	606202
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/06/05	12/07/05	35572782
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	88722
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99081
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/06/05	12/07/05	19406510
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/06/05	12/07/05	99990
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/06/05	12/07/05	2691410
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/06/05	12/07/05	98953
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/06/05	12/07/05	121824
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/06/05	12/07/05	479458
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.23	U	MG/L	12/06/05	12/06/05	7727379
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	630206
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	71556
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	79345
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	79005
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	75343
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/07/05	12/07/05	75354
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/07/05	12/07/05	563586
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/07/05	12/07/05	87616
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/07/05	12/07/05	96184
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/07/05	12/07/05	120821
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	95636
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/07/05	12/07/05	106934
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/07/05	12/07/05	95501
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/07/05	12/07/05	107062
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/07/05	12/07/05	78875
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	108678
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/07/05	12/07/05	541731
05-4965-4	WAB03	ORIG	IRPMW17-120205-W	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL</								

RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/07/05	12/07/05	96128	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/07/05	12/07/05	74953	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	75718	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	75092	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	100414	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/07/05	12/07/05	87863	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	98828	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/07/05	12/07/05	108383	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/07/05	12/07/05	1634044	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	104518	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	103851	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/07/05	12/07/05	91203	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/07/05	12/07/05	95476	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	135988	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/07/05	12/07/05	100425	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/07/05	12/07/05	98068	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/07/05	12/07/05	127184	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/07/05	12/07/05	108883	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/07/05	12/07/05	156605	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/07/05	12/07/05	10061028	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/07/05	12/07/05	79016	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/07/05	12/07/05	75694	
05-4965-6	WAB03	ORIG	TB120205	WATER	12/02/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/07/05	12/07/05	75014	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/08/05	12/08/05	88891	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.078	U	MG/L	12/08/05	12/08/05	7664417	b
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/07/05	12/08/05	99354	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/07/05	12/08/05	99650	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	118967	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	121142	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	606202	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/07/05	12/08/05	35572782	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	88722	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	99081	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/07/05	12/08/05	19406510	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	99990	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	2691410	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/07/05	12/08/05	98953	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDY	0.25	0.25	U	UG/L	12/07/05	12/08/05	121824	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/07/05	12/08/05	479458	
05-4970-1	WAB05	ORIG	IRPMW07-120205-W	WATER	12/02/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.22	U	MG/L	12/08/05	12/08/05	7727379	b
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/08/05	12/08/05	88891	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.55	U	MG/L	12/08/05	12/08/05	7664417	b
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/07/05	12/08/05	99354	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/07/05	12/08/05	99650	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	118967	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	121142	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	606202	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/07/05	12/08/05	35572782	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	88722	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	99081	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/07/05	12/08/05	19406510	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/07/05	12/08/05	99990	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/07/05	12/08/05	2691410	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/07/05	12/08/05	98953	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDY	0.25	0.25	U	UG/L	12/07/05	12/08/05	121824	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/07/05	12/08/05	479458	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.85	U	MG/L	12/08/05	12/08/05	7727379	b
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/08/05	12/08/05	88891	
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/08/05	12/08/05	7664417	b
05-4970-2	WAB05	ORIG	IRPMW08A-120205-W	WATER	12/02/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/07/05	12/08/05	99354	
05-4970-2	WAB05	ORIG	IRPMW08A-1														



RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5004-1	WAB07	ORIG	IRPMW11-120505-WER	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/09/05	12/09/05	10061026
05-5004-1	WAB07	ORIG	IRPMW11-120505-WER	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/09/05	12/09/05	79016
05-5004-1	WAB07	ORIG	IRPMW11-120505-WER	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	75694
05-5004-1	WAB07	ORIG	IRPMW11-120505-WER	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/09/05	12/09/05	75014
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	630206
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	71556
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79345
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79005
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75343
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	75354
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	563586
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	87618
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	96184
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	120821
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95636
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95501
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	107062
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	78875
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108678
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	541731
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	142289
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	104647
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	594207
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	95498
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	106434
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	89876
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/10/05	12/10/05	71432
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108861
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74975
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75274
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/10/05	12/10/05	75252
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74839
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	0.6	J	UG/L	12/10/05	12/10/05	56235
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108907
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75003
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	1	J	UG/L	12/10/05	12/10/05	67663
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74873
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156592
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061015
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	124481
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/10/05	12/10/05	96128
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74953
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75718
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75092
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	100414
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/10/05	12/10/05	87683
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98828
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/10/05	12/10/05	108383
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/10/05	12/10/05	1634044
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	104518
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	103651
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/10/05	12/10/05	91203
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/10/05	12/10/05	85476
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	135988
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/10/05	12/10/05	100425
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98066
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/10/05	12/10/05	127184
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/10/05	12/10/05	108883
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156605
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061026
05-5004-10	WAB07	ORIG	IRPMW31-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/10/05	12/10/05	79016
05-5004-10	WAB07	ORIG	IRPMW3													





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05-5004-8	WAB07	ORIG	IRPMW19-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	75014
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	630206
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	71556
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79345
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79005
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75343
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	75354
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	563586
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	87616
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	86184
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	120821
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95636
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	95501
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	107062
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	78875
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108678
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	541731
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	142289
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	106467
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	594207
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	95498
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	106434
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	99876
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/10/05	12/10/05	71432
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108861
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74975
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75274
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/10/05	12/10/05	75252
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74839
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	56235
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	108907
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	75003
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/10/05	12/10/05	67663
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74873
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156592
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061015
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	124481
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/10/05	12/10/05	96128
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74953
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75718
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75092
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	100414
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/10/05	12/10/05	87683
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98828
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/10/05	12/10/05	108383
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/10/05	12/10/05	163044
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	104518
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	103651
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/10/05	12/10/05	91203
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/10/05	12/10/05	95476
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	135988
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/10/05	12/10/05	100425
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98066
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/10/05	12/10/05	127184
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/10/05	12/10/05	108883
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156605
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061026
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/10/05	12/10/05	79016
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75694
05-5004-9	WAB07	ORIG	IRPMW30-120505-W	WATER	12/05/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	75014
05-5004-13	WAB07	ORIG	IRPMW33-120605-W	WATER	12/06/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/14/05	88891
05-5004-13	WAB07	ORIG	IRPMW33-120605-W	WATER	12/06/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N							

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05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.11	J	MG/L	12/09/05	12/09/05	7664417	g
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.4	0.79		MG/L	12/07/05	12/07/05	14797558	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.5	0.5	U	MG/L	12/07/05	12/07/05	7727379	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99354	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99650	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	118967	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	121142	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	606202	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/14/05	35572782	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	88722	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99081	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/14/05	19406510	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	89990	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/14/05	2691410	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	89953	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/14/05	121824	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/14/05	479458	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.19	U	MG/L	12/09/05	12/09/05	7727379	b
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	630206	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	71558	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79345	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79005	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75343	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	75354	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	563586	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	87616	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	96184	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	120821	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	85636	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	85501	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	107062	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	78875	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108678	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	541731	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	142289	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	106467	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	594207	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	95498	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	106434	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	99876	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/10/05	12/10/05	71432	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108861	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74975	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75274	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/10/05	12/10/05	75252	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74839	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	56235	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75003	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	67663	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/10/05	12/10/05	74873	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156592	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061015	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	124481	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/10/05	12/10/05	96128	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74953	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75718	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75092	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	100414	
05-5004-14	WAB07	ORIG	IRPMW34-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/10/05	12/10/05</		

RAW ANALYTICAL DATA  
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05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/10/05	12/10/05	108383
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/10/05	12/10/05	1634044
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	104518
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	103651
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/10/05	12/10/05	91203
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/10/05	12/10/05	95476
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	135988
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/10/05	12/10/05	100425
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98066
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/10/05	12/10/05	127184
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/10/05	12/10/05	108883
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156605
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061028
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/10/05	12/10/05	79016
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75694
05-5004-15	WAB07	ORIG	IRPMW35-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	75014
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/14/05	88891
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.18	J	MG/L	12/07/05	12/07/05	7664417
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.2	0.21	U	MG/L	12/07/05	12/07/05	14797558
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.25	0.25	U	MG/L	12/07/05	12/07/05	7727379
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99354
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99650
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	118967
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	121142
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	606202
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/14/05	35572782
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	88722
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	89081
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/14/05	19406510
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99990
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/14/05	2691410
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	88953
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDY	0.25	0.25	U	UG/L	12/12/05	12/14/05	121824
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/14/05	479458
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.37	J	MG/L	12/07/05	12/07/05	7727379
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	630206
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	71556
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79345
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79005
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75343
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	75354
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	563586
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	87816
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	96184
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	120821
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95636
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95501
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	107062
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	78875
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108678
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	541731
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	142289
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	106467
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	594207
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	95498
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	106434
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	99876
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/10/05	12/10/05	71432
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108861
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74975
05-5004-16	WAB07	ORIG	IRPMW36-120605-W	WATER	12/06/0											

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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/10/05	12/10/05	75252	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74839	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	58235	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108907	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75003	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/10/05	12/10/05	67863	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74873	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156592	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061015	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	124481	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/10/05	12/10/05	96128	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74953	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75718	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75092	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	100414	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/10/05	12/10/05	87683	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98828	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/10/05	12/10/05	108383	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/10/05	12/10/05	1634044	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	104518	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	103651	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/10/05	12/10/05	91203	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/10/05	12/10/05	95476	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	135988	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/10/05	12/10/05	100425	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98066	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/10/05	12/10/05	127184	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/10/05	12/10/05	108883	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156605	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061026	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/10/05	12/10/05	79016	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75694	
05-5004-17	WAB07	ORIG	IRPMW36-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	75014	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/14/05	88891	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/07/05	12/07/05	7664417	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.04	0.030	J	MG/L	12/07/05	12/07/05	14797558	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.25	0.25	U	MG/L	12/08/05	12/08/05	7727379	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99354	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99650	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	118967	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	121142	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	606202	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/14/05	35572782	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	88722	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99081	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/14/05	19406510	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99990	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/14/05	2691410	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	98953	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/14/05	121824	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/14/05	479458	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.23	J	MG/L	12/07/05	12/07/05	7727379	b
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	630208	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	71556	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79345	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79005	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75343	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75354	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	583586	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	96184	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	120821	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95638	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95501	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	107062	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	78875	
05-5004-18	WAB07	ORIG	IRPMW48-120605-W	WATER	12/06/05	VO											

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05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95636
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	95501
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	107062
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108678
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	541731
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	142289
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	106467
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	594207
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	95498
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	106434
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	99876
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/10/05	12/10/05	71432
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108861
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74975
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75274
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/10/05	12/10/05	75252
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74839
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	56235
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	108907
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75003
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/10/05	12/10/05	67663
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74873
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156592
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061015
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	124481
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/10/05	12/10/05	96128
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74953
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75718
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75092
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	100414
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/10/05	12/10/05	87683
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98828
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/10/05	12/10/05	108383
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/10/05	12/10/05	1634044
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	104518
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	103651
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/10/05	12/10/05	91203
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/10/05	12/10/05	95476
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	135988
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/10/05	12/10/05	100425
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	98066
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/10/05	12/10/05	127184
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/10/05	12/10/05	108883
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156605
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061026
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/10/05	12/10/05	79016
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75694
05-5004-19	WAB07	ORIG	IRPMW48-120605-WER	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	75014
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/14/05	88891
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/09/05	12/09/05	7664417
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.51	U	MG/L	12/07/05	12/07/05	14797558
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/07/05	12/07/05	7727379
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99354
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99650
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	118967
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	121142
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	606202
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/14/05	35572782
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	88722
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99081
05-5004-2	WAB07	ORIG	IRPMW11-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06					

RAW ANALYTICAL DATA  
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05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/14/05	19406510
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	89990
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/14/05	2891410
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	88953
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/14/05	121824
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/14/05	479458
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.2	U	MG/L	12/09/05	12/09/05	7727379
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	630206
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	71556
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	79345
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	79005
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	75343
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/09/05	12/09/05	563586
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/09/05	12/09/05	75354
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/09/05	12/09/05	563586
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/09/05	12/09/05	87618
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/09/05	12/09/05	120821
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	85636
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/09/05	12/09/05	106934
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/09/05	12/09/05	95501
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	107062
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/09/05	12/09/05	78875
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	108878
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/09/05	12/09/05	541731
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/09/05	12/09/05	142289
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/09/05	12/09/05	106467
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/09/05	12/09/05	594207
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/09/05	12/09/05	95498
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/09/05	12/09/05	106434
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/09/05	12/09/05	99876
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/09/05	12/09/05	71432
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/09/05	12/09/05	108861
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	74975
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	75274
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/09/05	12/09/05	75252
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/09/05	12/09/05	74839
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/09/05	12/09/05	56235
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/09/05	12/09/05	108907
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/09/05	12/09/05	75003
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/09/05	12/09/05	67663
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	74873
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/09/05	12/09/05	158592
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/09/05	12/09/05	10061015
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	96128
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/09/05	12/09/05	74953
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	75718
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/09/05	12/09/05	75092
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	100414
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/09/05	12/09/05	87683
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	98828
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/09/05	12/09/05	108383
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/09/05	12/09/05	1634044
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	104518
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	103651
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/09/05	12/09/05	91203
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/09/05	12/09/05	95476
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	135988
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/09/05	12/09/05	100425
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/09/05	12/09/05	98066
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/09/05	12/09/05	127184
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/09/05	12/09/05	108883
05-5004-3	WAB07	ORIG	IRPMW12A-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/09/05	12/09/05	156605

RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5004-4	WAB07	ORIG	IRPMW12B-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156605	
05-5004-4	WAB07	ORIG	IRPMW12B-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061026	
05-5004-4	WAB07	ORIG	IRPMW12B-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/10/05	12/10/05	79016	
05-5004-4	WAB07	ORIG	IRPMW12B-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75694	
05-5004-4	WAB07	ORIG	IRPMW12B-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	75014	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/14/05	88891	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.094	J	MG/L	12/09/05	12/09/05	7664417	g
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.49		MG/L	12/07/05	12/07/05	14797558	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/07/05	12/07/05	7727379	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99354	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	99650	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	118967	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	121142	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	606202	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/14/05	35572782	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	88722	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99081	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/14/05	19406510	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/14/05	99990	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/14/05	2691410	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/14/05	98953	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDx	0.25	0.25	U	UG/L	12/12/05	12/14/05	121824	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/14/05	479458	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.14	U	MG/L	12/09/05	12/09/05	7727379	b
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	630206	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	71556	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79345	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	79005	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75343	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	75354	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	563586	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	87616	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	96184	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	120821	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95636	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/10/05	12/10/05	106934	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	95501	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	107062	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	78875	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108678	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	541731	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	142289	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	106467	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/10/05	12/10/05	594207	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	95498	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	106434	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/10/05	12/10/05	99876	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/10/05	12/10/05	71432	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108861	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74975	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	75274	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/10/05	12/10/05	75252	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74839	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/10/05	12/10/05	56235	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/10/05	12/10/05	108907	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/10/05	12/10/05	75003	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/10/05	12/10/05	87663	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/10/05	12/10/05	74873	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/10/05	12/10/05	156592	
05-5004-5	WAB07	ORIG	IRPMW13-120605-W	WATER	12/06/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/10/05	12/10/05	10061015	
05-5004-5</																	



RAW ANALYTICAL DATA  
ANNUAL 2005 GROUNDWATER MONITORING  
HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	606202
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/16/05	35572782
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	88722
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	99081
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/16/05	19406510
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	99990
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/16/05	2691410
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	98953
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/16/05	121824
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/16/05	479458
05-5022-7	WAB08	ORIG	HWAAP18-120705-W	WATER	12/07/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.2	U	MG/L	12/09/05	12/09/05	7727379
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/16/05	88891
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.094	U	MG/L	12/09/05	12/09/05	7664417
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.10	U	MG/L	12/08/05	12/08/05	14797558
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/08/05	12/08/05	7727379
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	99354
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	99650
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	118967
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	121142
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	606202
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/16/05	35572782
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	88722
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	99081
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/16/05	19406510
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	99990
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/16/05	2691410
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	98953
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/16/05	121824
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/16/05	479458
05-5022-8	WAB08	ORIG	IRPMW24-120705-W	WATER	12/07/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.21	U	MG/L	12/09/05	12/09/05	7727379
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/16/05	88891
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.17	J	MG/L	12/09/05	12/09/05	7664417
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.072	J	MG/L	12/08/05	12/08/05	14797558
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/08/05	12/08/05	7727379
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	99354
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	99650
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	118967
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	121142
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	606202
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/16/05	35572782
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	88722
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	99081
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/16/05	19406510
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	99990
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/16/05	2691410
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	98953
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/16/05	121824
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/16/05	479458
05-5022-9	WAB08	ORIG	IRPMW24-120705-WER	WATER	12/07/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.22	U	MG/L	12/09/05	12/09/05	7727379
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	630206
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	71556
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	79345
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	78005
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	75343
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	75354
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	563586
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	87616
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	96184
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	120821
05-5041-1	WAB09	ORIG	BLDG70MW01-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	95636
05-5041-1	WAB09	ORIG	BLDG													







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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061015
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	124481
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/20/05	12/20/05	96128
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74953
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75718
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75092
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	100414
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/20/05	12/20/05	87683
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	108383
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	103651
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/20/05	12/20/05	91203
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/20/05	12/20/05	95476
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	135988
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/20/05	12/20/05	100425
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98066
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/20/05	12/20/05	127184
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/20/05	12/20/05	108883
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156605
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061026
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/20/05	12/20/05	79016
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75694
05-5041-24	WAB09	ORIG	TB120705	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	75014
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	630206
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	71556
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	79345
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	79005
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	75343
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	75354
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	563586
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	87616
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	96184
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	120821
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	95636
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/19/05	12/19/05	106934
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	95501
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	107062
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	78875
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108678
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	541731
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	142289
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	106467
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	594207
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	95498
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	106434
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	99876
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/19/05	12/19/05	71432
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108861
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74975
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75274
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/19/05	12/19/05	75252
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74839
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/19/05	12/19/05	56235
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108907
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	75003
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/19/05	12/19/05	67663
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74873
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	156592
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	10061015
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	124481
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/19/05	12/19/05	96128
05-5041-5	WAB09	ORIG	HWAAP15-120705-W	WATER	12/07											



RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	142289
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	106467
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	594207
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	95498
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	106434
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	99876
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/19/05	12/19/05	71432
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108861
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74975
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75274
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/19/05	12/19/05	75252
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74839
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/19/05	12/19/05	56235
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108907
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	75003
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/19/05	12/19/05	67663
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74873
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	156592
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	10061015
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	124481
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/19/05	12/19/05	96128
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74953
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75718
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75092
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	100414
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/19/05	12/19/05	87683
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	98828
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/19/05	12/19/05	103838
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/19/05	12/19/05	1634044
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	104518
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	103651
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/19/05	12/19/05	91203
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/19/05	12/19/05	95476
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	135988
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/19/05	12/19/05	100425
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	98066
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/19/05	12/19/05	127184
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/19/05	12/19/05	108883
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	156605
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	10061026
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/19/05	12/19/05	79016
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75694
05-5041-9	WAB09	ORIG	HWAAP17-120705-W	WATER	12/07/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/19/05	12/19/05	75014
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/14/05	88891
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.088	J	MG/L	12/12/05	12/12/05	7664417
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.20	J	MG/L	12/09/05	12/09/05	14797558
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.05	0.05	U	MG/L	12/09/05	12/09/05	7727379
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/15/05	99354
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/15/05	99650
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	118967
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	121142
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	606202
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/15/05	35572782
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	88722
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	99081
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/15/05	19406510
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	99990
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/15/05	2691410
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/15/05	98953
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDx	0.25	0.25	U	UG/L	12/12/05	12/15/05	121824
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/15/05	479458
05-5041-11	WAB09	ORIG	IRPMW22-120805-W	WATER	12/08/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.21	J	MG/L	12/12/05	12/12/05	7727379
05-5041-11	WAB09	ORIG														



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05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/15/05	88891
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.31		MG/L	12/12/05	12/12/05	7664417
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.28		MG/L	12/09/05	12/09/05	14797558
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.05	0.05	U	MG/L	12/09/05	12/09/05	7727379
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/15/05	99354
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/15/05	99650
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	118967
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	121142
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	606202
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/15/05	35572782
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	88722
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	99081
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/15/05	19406510
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/15/05	99990
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/15/05	2691410
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/15/05	98953
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/15/05	121824
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/15/05	479458
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.59		MG/L	12/12/05	12/12/05	7727379
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	630206
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	71556
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	79345
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	79005
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	75343
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	75354
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	563586
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	87616
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	96184
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	120821
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	95636
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/19/05	12/19/05	106934
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	95501
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	107062
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	78875
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108678
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	541731
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	142289
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	106467
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/19/05	12/19/05	594207
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	95498
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	106434
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/19/05	12/19/05	99876
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/19/05	12/19/05	71432
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108861
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74975
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75274
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/19/05	12/19/05	75252
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74839
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/19/05	12/19/05	56235
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/19/05	12/19/05	108907
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/19/05	12/19/05	75003
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/19/05	12/19/05	67663
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74873
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/19/05	12/19/05	156592
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/19/05	12/19/05	10061015
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	124481
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/19/05	12/19/05	96128
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/19/05	12/19/05	74953
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75718
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/19/05	12/19/05	75092
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/19/05	12/19/05	100414
05-5041-20	WAB09	ORIG	IRPMW29-120805-W	WATER	12/08/05	VOA8										

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05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	103983
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	103651
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/20/05	12/20/05	91203
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/20/05	12/20/05	95476
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	135988
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/20/05	12/20/05	100425
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98066
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/20/05	12/20/05	127184
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/20/05	12/20/05	108883
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156605
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061026
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	6.6	U	UG/L	12/20/05	12/20/05	79016
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75694
05-5041-21	WAB09	ORIG	IRPMW37-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	75014
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	1.4	1.4	U	UG/L	12/12/05	12/15/05	88891
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.67	MG/L	12/12/05	12/12/05	7664417	
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.17	MG/L	12/09/05	12/09/05	14797558	
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.05	0.05	U	MG/L	12/09/05	12/09/05	7727379
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	99354
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	98650
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	118967
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	121142
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	606202
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.28	0.28	U	UG/L	12/12/05	12/15/05	35572782
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	88722
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	99081
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.093	0.093	U	UG/L	12/12/05	12/15/05	19406510
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	99990
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	DMX	1.6	1.6	U	UG/L	12/12/05	12/15/05	2691410
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1.6	1.6	U	UG/L	12/12/05	12/15/05	98953
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDH	0.39	0.39	U	UG/L	12/12/05	12/15/05	121824
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TETRYL	1.6	1.6	U	UG/L	12/12/05	12/15/05	479458
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOTAL KJELDAHL NITROGEN	0.2	1.8	MG/L	12/12/05	12/12/05	7727379	
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	630206
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	71556
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79345
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79005
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75343
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	75354
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	563586
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	87616
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	96184
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	120821
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	95636
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/20/05	12/20/05	106934
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	95501
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	78875
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108678
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	541731
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	142289
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	106467
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	594207
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	95498
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	106434
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	99876
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/20/05	12/20/05	71432
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108861
05-5041-22	WAB09	ORIG	IRPMW38-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74975
05-5041-22	WAB09	ORIG	IRPMW38-120805-W													

RAW ANALYTICAL DATA  
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05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UGL	12/20/05	12/20/05	75274
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UGL	12/20/05	12/20/05	75252
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UGL	12/20/05	12/20/05	74839
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UGL	12/20/05	12/20/05	56235
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UGL	12/20/05	12/20/05	108907
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UGL	12/20/05	12/20/05	75003
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UGL	12/20/05	12/20/05	87663
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UGL	12/20/05	12/20/05	74873
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UGL	12/20/05	12/20/05	156592
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UGL	12/20/05	12/20/05	10061015
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UGL	12/20/05	12/20/05	124481
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UGL	12/20/05	12/20/05	96128
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UGL	12/20/05	12/20/05	74953
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UGL	12/20/05	12/20/05	75718
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UGL	12/20/05	12/20/05	75092
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UGL	12/20/05	12/20/05	100414
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UGL	12/20/05	12/20/05	87683
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UGL	12/20/05	12/20/05	98828
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UGL	12/20/05	12/20/05	103833
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UGL	12/20/05	12/20/05	1634044
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UGL	12/20/05	12/20/05	104518
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UGL	12/20/05	12/20/05	103651
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UGL	12/20/05	12/20/05	91203
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UGL	12/20/05	12/20/05	95476
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UGL	12/20/05	12/20/05	135988
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UGL	12/20/05	12/20/05	100425
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UGL	12/20/05	12/20/05	98066
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UGL	12/20/05	12/20/05	127184
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UGL	12/20/05	12/20/05	108883
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UGL	12/20/05	12/20/05	156605
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UGL	12/20/05	12/20/05	10061028
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UGL	12/20/05	12/20/05	79016
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UGL	12/20/05	12/20/05	75694
05-5041-23	WAB09	ORIG	IRPMW39-120805-W	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UGL	12/20/05	12/20/05	75014
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UGL	12/12/05	12/14/05	88891
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	UGL	12/12/05	12/12/05	7664417
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.04	0.032	J	UGL	12/09/05	12/09/05	14797558
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.05	0.05	U	UGL	12/09/05	12/09/05	7727379
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UGL	12/12/05	12/14/05	99354
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UGL	12/12/05	12/14/05	99650
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UGL	12/12/05	12/14/05	118967
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UGL	12/12/05	12/14/05	121142
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UGL	12/12/05	12/14/05	606202
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UGL	12/12/05	12/14/05	35572782
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UGL	12/12/05	12/14/05	88722
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UGL	12/12/05	12/14/05	99081
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UGL	12/12/05	12/14/05	19406510
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UGL	12/12/05	12/14/05	99990
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UGL	12/12/05	12/14/05	2691410
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UGL	12/12/05	12/14/05	98953
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDY	0.25	0.25	U	UGL	12/12/05	12/14/05	121824
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UGL	12/12/05	12/14/05	479458
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.2	U	UGL	12/12/05	12/12/05	7727379
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UGL	12/19/05	12/19/05	630206
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UGL	12/19/05	12/19/05	71556
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UGL	12/19/05	12/19/05	79345
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UGL	12/19/05	12/19/05	79005
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UGL	12/19/05	12/19/05	75343
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UGL	12/19/05	12/19/05	75354
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UGL	12/19/05	12/19/05	563586
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROPROPANE	2	2	U	UGL	12/19/05	12/19/05	96184
05-5041-3	WAB09	ORIG	HWAAP09-120805-WER	WATER	12/08/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U				

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05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	87616
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	96184
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	120821
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	95636
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/16/05	12/16/05	106934
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	95501
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	107062
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	78875
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	108678
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	541731
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	142289
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	106467
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	594207
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/16/05	12/16/05	95498
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/16/05	12/16/05	106434
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/16/05	12/16/05	99876
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/16/05	12/16/05	71432
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/16/05	12/16/05	108861
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74975
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75274
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/16/05	12/16/05	75252
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74839
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/16/05	12/16/05	56235
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	108907
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	75003
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/16/05	12/16/05	67663
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74873
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	156592
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	10061015
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	124481
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/16/05	12/16/05	96128
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74953
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75718
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75092
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	100414
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/16/05	12/16/05	87683
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98828
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/16/05	12/16/05	108363
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/16/05	12/16/05	1634044
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	104518
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	103651
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/16/05	12/16/05	91203
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/16/05	12/16/05	95476
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	135988
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/16/05	12/16/05	100425
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98066
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/16/05	12/16/05	127184
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/16/05	12/16/05	108883
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	156605
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	10061026
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/16/05	12/16/05	79016
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75694
05-5051-1	WAB10	ORIG	IRPMW40A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/16/05	12/16/05	75014
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/16/05	88891
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.23	J	MG/L	12/13/05	12/13/05	7664417
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.86	U	MG/L	12/10/05	12/10/05	14797558
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/10/05	12/10/05	7727379
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	99354
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/16/05	99650
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	118967
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	121142
05-5051-2	WAB10	ORIG	IRPMW40B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/16/05	606202
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05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98066
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/16/05	12/16/05	127184
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/16/05	12/16/05	108883
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	156605
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	10061026
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/16/05	12/16/05	79016
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75694
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/16/05	12/16/05	75014
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/16/05	88891
05-5051-4	WAB10	ORIG	IRPMW45-120905-W	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.35	MG/L	12/13/05	12/13/05	7664417	
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	1.4	MG/L	12/10/05	12/10/05	14797558	
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/10/05	12/10/05	7727379
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/19/05	99354
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/19/05	99650
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	118967
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	121142
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	606202
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/19/05	35572782
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	88722
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	99081
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/19/05	19406510
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	89990
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/19/05	2691410
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/19/05	98953
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/19/05	121824
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/19/05	479458
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.51	MG/L	12/13/05	12/13/05	7727379	
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	630206
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	71556
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	79345
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	79005
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	75343
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	75354
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	563586
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	87616
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	96184
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	120821
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	95636
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/16/05	12/16/05	106934
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	95501
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	107062
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	78875
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	108678
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	541731
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	142289
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	106467
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	594207
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/16/05	12/16/05	95498
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/16/05	12/16/05	106434
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/16/05	12/16/05	99876
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/16/05	12/16/05	71432
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/16/05	12/16/05	108861
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74975
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75274
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/16/05	12/16/05	75252
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74839
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/16/05	12/16/05	56235
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/16/05	12/16/05	108907
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	75003
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	3	U	UG/L	12/16/05	12/16/05	87663
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74873
05-5051-5	WAB10	ORIG	IRPMW46-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/		

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05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	10061015
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	124481
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/16/05	12/16/05	96128
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74953
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75718
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75092
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	100414
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBTADIENE	2	2	U	UG/L	12/16/05	12/16/05	87683
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98828
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/16/05	12/16/05	108383
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/16/05	12/16/05	1634044
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	104518
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	103651
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/16/05	12/16/05	91203
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/16/05	12/16/05	95476
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	135988
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/16/05	12/16/05	100425
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98066
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/16/05	12/16/05	127184
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/16/05	12/16/05	108883
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	156605
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	10061026
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/16/05	12/16/05	79016
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75694
05-5051-6	WAB10	ORIG	IRPMW46-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/16/05	12/16/05	75014
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/12/05	12/16/05	88891
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/13/05	12/13/05	7664417
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	1.4	MG/L	12/10/05	12/10/05	14787558	
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/10/05	12/10/05	7727379
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/12/05	12/19/05	89354
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/12/05	12/19/05	89650
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	118967
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	121142
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	806202
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/12/05	12/19/05	35572782
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	88722
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	89081
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/12/05	12/19/05	19406510
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/12/05	12/19/05	89990
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/12/05	12/19/05	2691410
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/12/05	12/19/05	88953
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/12/05	12/19/05	121824
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/12/05	12/19/05	479458
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	TKN	SM 4500-NORGB/4500-N3HC SMEVWV (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.2	U	MG/L	12/13/05	12/13/05	7727379
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	630206
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	71556
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	79345
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	79005
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	75343
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	75354
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	563586
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	87616
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	96184
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	120821
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	95636
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/16/05	12/16/05	106934
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	95501
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	107062
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/16/05	12/16/05	78875
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	108678
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROETHANE	2	2	U	UG/L	12/16/05	12/16/05	541731
05-5051-7	WAB10	ORIG	IRPMW47-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHL							

RAW ANALYTICAL DATA  
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05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/16/05	12/16/05	96128
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/16/05	12/16/05	74953
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75718
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75092
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	100414
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/16/05	12/16/05	87683
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98828
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/16/05	12/16/05	103833
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/16/05	12/16/05	1634044
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	104518
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	103651
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/16/05	12/16/05	91203
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/16/05	12/16/05	95476
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	135988
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/16/05	12/16/05	100425
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/16/05	12/16/05	98066
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/16/05	12/16/05	127184
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/16/05	12/16/05	108883
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/16/05	12/16/05	156605
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/16/05	12/16/05	10061026
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/16/05	12/16/05	79016
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/16/05	12/16/05	75694
05-5051-8	WAB10	ORIG	TB120905	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/16/05	12/16/05	75014
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/16/05	12/20/05	88891
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/13/05	12/13/05	7664417
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.14	U	MG/L	12/10/05	12/10/05	14797558
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/10/05	12/10/05	7727379
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99354
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99650
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	118967
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	121142
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	606202
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/16/05	12/20/05	35572782
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	88722
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99081
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/16/05	12/20/05	19406510
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99990
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/16/05	12/20/05	2691410
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	98953
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/16/05	12/20/05	121824
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TETRYL	1	1	U	UG/L	12/16/05	12/20/05	479458
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.11	U	MG/L	12/13/05	12/13/05	7727379
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	630206
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	71556
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79345
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79005
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75343
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	563586
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	876184
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	96184
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	120821
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	95636
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/20/05	12/20/05	106934
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	95501
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	107062
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	78875
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108678
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	541731
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	142289
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	106467
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	106467
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	594207
05-5052-1	WAB11	ORIG	IRPMW49-120905-W	WATER	12/09/05											

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05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	95498
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	106434
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	99876
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/20/05	12/20/05	71432
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108861
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74975
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75274
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/20/05	12/20/05	75252
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74839
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	56235
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	108907
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75003
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/20/05	12/20/05	67663
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74873
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156592
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061015
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	124481
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/20/05	12/20/05	96128
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74953
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75718
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75092
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	100414
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/20/05	12/20/05	87683
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	108383
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	103651
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/20/05	12/20/05	91203
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/20/05	12/20/05	95476
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	135988
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/20/05	12/20/05	100425
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98066
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/20/05	12/20/05	127184
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/20/05	12/20/05	108883
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156605
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061026
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	11	U	UG/L	12/20/05	12/20/05	79016
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75694
05-5052-2	WAB11	ORIG	IRPMW50-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	75014
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/16/05	12/20/05	88891
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.14	U	MG/L	12/13/05	12/13/05	7664417
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.64	3.0	U	MG/L	12/10/05	12/10/05	14797558
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.8	0.8	U	MG/L	12/10/05	12/10/05	7727379
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99354
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99650
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	118967
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	121142
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	606202
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/16/05	12/20/05	35572782
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	88722
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99081
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/16/05	12/20/05	19406510
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99990
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/16/05	12/20/05	2691410
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	98953
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/16/05	12/20/05	121824
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TRTYL	1	1	U	UG/L	12/16/05	12/20/05	479458
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.20	U	MG/L	12/13/05	12/13/05	7727379
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	630206
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	20	20	U	UG/L	12/21/05	12/21/05	630206
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/0	

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05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	100414
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	20	20	U	UG/L	12/21/05	12/21/05	100414
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/20/05	12/20/05	87683
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	20	20	U	UG/L	12/21/05	12/21/05	87683
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	20	20	U	UG/L	12/21/05	12/21/05	98828
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	108383
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	20	20	U	UG/L	12/21/05	12/21/05	108383
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	20	20	U	UG/L	12/21/05	12/21/05	1634044
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	20	20	U	UG/L	12/21/05	12/21/05	104518
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	103651
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	20	20	U	UG/L	12/21/05	12/21/05	103651
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/20/05	12/20/05	91203
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	20	20	U	UG/L	12/21/05	12/21/05	91203
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/20/05	12/20/05	95476
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	20	20	U	UG/L	12/21/05	12/21/05	95476
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	135988
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	20	20	U	UG/L	12/21/05	12/21/05	135988
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/20/05	12/20/05	100425
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	20	20	U	UG/L	12/21/05	12/21/05	100425
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98066
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	20	20	U	UG/L	12/21/05	12/21/05	98066
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	0.4	J	UG/L	12/20/05	12/20/05	127184
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	20	20	U	UG/L	12/21/05	12/21/05	127184
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/20/05	12/20/05	108883
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	20	20	U	UG/L	12/21/05	12/21/05	108883
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156605
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	20	20	U	UG/L	12/21/05	12/21/05	156605
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061026
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	20	20	U	UG/L	12/21/05	12/21/05	10061026
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	232	U	UG/L	12/20/05	12/20/05	79016
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	20	232	U	UG/L	12/21/05	12/21/05	79016
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75694
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	20	20	U	UG/L	12/21/05	12/21/05	75694
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	75014
05-5052-3	WAB11	ORIG	IRPMW50A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	20	20	U	UG/L	12/21/05	12/21/05	75014
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/16/05	12/20/05	88891
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.13	J	MG/L	12/13/05	12/13/05	7664417
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.04	0.04	U	MG/L	12/10/05	12/10/05	14797558
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.05	0.05	U	MG/L	12/10/05	12/10/05	7727379
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99354
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99650
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	118967
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	121142
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	606202
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/16/05	12/20/05	35572782
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	88722
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99081
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/16/05	12/20/05	19406510
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99990
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/16/05	12/20/05	2691410
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	98953
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/16/05	12/20/05	121824
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/16/05	12/20/05	479458
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.17	J	MG/L	12/13/05	12/13/05	7727379
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	630206
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	71556
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79345
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79005
05-5052-4	WAB11	ORIG	IRPMW51-120905-WER	WATER	12/09/05	VOA826										

RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	75354
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	563586
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	87616
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	96184
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	120821
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	95636
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/20/05	12/20/05	106934
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	95501
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	107062
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	78875
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108678
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	541731
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	142289
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	106467
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	594207
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	95498
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	106434
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	99876
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/20/05	12/20/05	71432
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108861
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74975
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75274
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/20/05	12/20/05	75252
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74839
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	56235
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108907
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75003
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/20/05	12/20/05	67663
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156592
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061015
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	124481
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/20/05	12/20/05	96128
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74953
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75718
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75092
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	100414
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBTADIENE	2	2	U	UG/L	12/20/05	12/20/05	87683
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	108383
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	103651
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/20/05	12/20/05	91203
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/20/05	12/20/05	95476
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	135988
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/20/05	12/20/05	100425
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98066
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/20/05	12/20/05	127184
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/20/05	12/20/05	108883
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156605
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061026
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/20/05	12/20/05	79016
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75694
05-5052-5	WAB11	ORIG	IRPMW51A-120905-W	WATER	12/09/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	75014
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/16/05	12/20/05	88891
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.35	U	MG/L	12/13/05	12/13/05	7664417
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.14	U	MG/L	12/13/05	12/13/05	14797558
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/10/05	12/10/05	7727379
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99354
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99650
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	118967
05-5052-6	WAB11	ORIG	IRPMW51B-120905-W	WATER	12/09/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	121142
05-5052-6																



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05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UGL	12/22/05	12/22/05	95501
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UGL	12/22/05	12/22/05	107062
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UGL	12/22/05	12/22/05	78875
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	108678
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UGL	12/22/05	12/22/05	541731
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UGL	12/22/05	12/22/05	142289
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UGL	12/22/05	12/22/05	106467
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UGL	12/22/05	12/22/05	594207
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UGL	12/22/05	12/22/05	95498
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UGL	12/22/05	12/22/05	106434
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UGL	12/22/05	12/22/05	99876
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UGL	12/22/05	12/22/05	71432
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UGL	12/22/05	12/22/05	108861
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	74975
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	75274
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UGL	12/22/05	12/22/05	75252
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UGL	12/22/05	12/22/05	74839
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UGL	12/22/05	12/22/05	56235
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UGL	12/22/05	12/22/05	108907
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UGL	12/22/05	12/22/05	75003
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UGL	12/22/05	12/22/05	67663
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	74873
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UGL	12/22/05	12/22/05	156592
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UGL	12/22/05	12/22/05	10061015
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	124481
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UGL	12/22/05	12/22/05	96128
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UGL	12/22/05	12/22/05	74953
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	75718
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	75092
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	100414
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UGL	12/22/05	12/22/05	87683
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	98828
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UGL	12/22/05	12/22/05	108383
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UGL	12/22/05	12/22/05	1634044
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	104518
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	103651
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UGL	12/22/05	12/22/05	91203
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UGL	12/22/05	12/22/05	95476
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	135988
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UGL	12/22/05	12/22/05	100425
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UGL	12/22/05	12/22/05	98066
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UGL	12/22/05	12/22/05	127184
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UGL	12/22/05	12/22/05	108883
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UGL	12/22/05	12/22/05	156605
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UGL	12/22/05	12/22/05	10061026
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	1	J	UGL	12/22/05	12/22/05	79016
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UGL	12/22/05	12/22/05	75694
05-5112-12	WAB14	ORIG	IRPMW56-121205-W	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UGL	12/22/05	12/22/05	75014
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	630206
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	71556
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	79345
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	79005
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	75343
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UGL	12/21/05	12/21/05	75354
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UGL	12/21/05	12/21/05	563586
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UGL	12/21/05	12/21/05	87616
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UGL	12/21/05	12/21/05	96184
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UGL	12/21/05	12/21/05	120821
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UGL	12/21/05	12/21/05	95636
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UGL	12/21/05	12/21/05	106934
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	95501
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UGL	12/21/05	12/21/05	107062
05-5112-13	WAB14	ORIG	TB121205	WATER	12/12/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2					





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05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	96184
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	120821
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95636
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/21/05	12/21/05	106934
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95501
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	107062
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	78875
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108678
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	541731
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	142289
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	106467
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	594207
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	95498
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	106434
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	99876
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/21/05	12/21/05	71432
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108861
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74975
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75274
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/21/05	12/21/05	75252
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74839
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	56235
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	108907
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75003
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	0.8	J	UG/L	12/21/05	12/21/05	67663
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74873
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156592
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061015
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	124481
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/21/05	12/21/05	96128
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74953
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75718
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75092
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	100414
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/21/05	12/21/05	87683
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98828
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/21/05	12/21/05	108383
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/21/05	12/21/05	1634044
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	104518
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	103651
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/21/05	12/21/05	91203
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/21/05	12/21/05	95476
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	135988
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/21/05	12/21/05	100425
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98066
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	0.6	J	UG/L	12/21/05	12/21/05	127184
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/21/05	12/21/05	108883
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156605
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061026
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/21/05	12/21/05	79016
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75694
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	75014
05-5112-3	WAB14	ORIG	IRPMW20-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/20/05	12/20/05	88891
05-5112-3	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/17/05	12/17/05	7664417
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	NITRATE AS N	0.04	0.027	J	MG/L	12/15/05	12/15/05	14797558
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.05	0.05	U	MG/L	12/15/05	12/15/05	7727379
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	ANION	EPA 300.0 (1984)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99354
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	99650
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	118967
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	121142
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	606202
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/16/05	12/20/05	35572782
05-5112-4	WAB14	ORIG	IRPMW20-121405-WER													

RAW ANALYTICAL DATA  
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HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	88722
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99081
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/16/05	12/20/05	19406510
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/20/05	99990
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/16/05	12/20/05	2691410
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/16/05	12/20/05	98953
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/16/05	12/20/05	121824
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/16/05	12/20/05	479458
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.15	J	MG/L	12/17/05	12/17/05	7727379
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	630206
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	71556
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	79345
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	79005
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75343
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	75354
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	563586
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	87616
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	96184
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	120821
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95636
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/21/05	12/21/05	106934
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95501
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	107062
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	78875
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108678
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	541731
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	142289
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	106467
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	594207
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	95498
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	106434
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	99876
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/21/05	12/21/05	71432
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108861
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74975
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75274
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/21/05	12/21/05	75252
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74839
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	56235
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROACETONE	2	2	U	UG/L	12/21/05	12/21/05	108907
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75003
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/21/05	12/21/05	67663
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74873
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156592
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061015
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	124481
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/21/05	12/21/05	96128
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74953
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75718
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75092
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	100414
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/21/05	12/21/05	87683
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98828
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/21/05	12/21/05	108383
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/21/05	12/21/05	1634044
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	104518
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	103651
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/21/05	12/21/05	91203
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/21/05	12/21/05	95476
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	135988
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/21/05	12/21/05	100425
05-5112-5	WAB14	ORIG	IRPMW21A-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	

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05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/21/05	12/21/05	127184
05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/21/05	12/21/05	108883
05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156605
05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061026
05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/21/05	12/21/05	79016
05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75694
05-5112-6	WAB14	ORIG	IRPMW21B-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	75014
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/20/05	12/20/05	88891
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.3	U	MG/L	12/17/05	12/17/05	7664417
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	1.8	U	MG/L	12/15/05	12/15/05	14797558
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/15/05	12/15/05	7727379
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/16/05	12/21/05	99354
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/16/05	12/21/05	99650
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/16/05	12/21/05	118967
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/21/05	121142
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/16/05	12/21/05	606202
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/16/05	12/21/05	35572782
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/21/05	88722
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/21/05	99081
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/16/05	12/21/05	19406510
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/16/05	12/21/05	2691410
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/16/05	12/21/05	98953
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/16/05	12/21/05	121824
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/16/05	12/21/05	479458
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/16/05	12/21/05	7727379
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.66	MG/L	12/17/05	12/17/05	7727379	
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	630206
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	71556
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	79345
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	79005
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75343
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	75354
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	563586
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	87616
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	96184
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	120821
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95636
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/21/05	12/21/05	106934
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95501
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	107062
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	78875
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108678
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	541731
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	142289
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	106467
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	594207
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	95498
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	106434
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	99876
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/21/05	12/21/05	71432
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108861
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74975
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	0.3	J	UG/L	12/21/05	12/21/05	75274
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/21/05	12/21/05	75252
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74839
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	56235
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	108907
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75003
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROPROPANE	2	4.6	U	UG/L	12/21/05	12/21/05	67663
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74873
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156592
05-5112-8	WAB14	ORIG	IRPMW42-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2						

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05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	124481	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/21/05	12/21/05	96128	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74953	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75718	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75092	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	100414	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/21/05	12/21/05	87683	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98828	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/21/05	12/21/05	108383	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/21/05	12/21/05	1634044	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	104518	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	103651	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/21/05	12/21/05	91203	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/21/05	12/21/05	95476	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	135988	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/21/05	12/21/05	100425	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98066	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/21/05	12/21/05	127184	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/21/05	12/21/05	108883	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156605	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061026	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/21/05	12/21/05	79016	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75694	
05-5112-9	WAB14	ORIG	IRPMW43-121405-W	WATER	12/14/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	75014	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/22/05	12/22/05	88891	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.14	J+	MG/L	12/17/05	12/17/05	7664417	cg
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.12	U	MG/L	12/16/05	12/16/05	14797558	b
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/16/05	12/16/05	7727379	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	99354	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	99650	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	118967	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	121142	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	606202	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/20/05	12/22/05	35572782	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	88722	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99081	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/20/05	12/22/05	19406510	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99990	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/20/05	12/22/05	2691410	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	98953	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/20/05	12/22/05	121824	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/20/05	12/22/05	479458	
05-5123-1	WAB15	ORIG	DZB10144MW1-121505-W	WATER	12/15/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992)	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.49	U	MG/L	12/17/05	12/17/05	7727379	b
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/22/05	12/22/05	88891	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.078	J+	MG/L	12/17/05	12/17/05	7664417	cg
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.12	U	MG/L	12/16/05	12/16/05	14797558	b
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/16/05	12/16/05	7727379	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	99354	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	99650	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	118967	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	121142	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	606202	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/20/05	12/22/05	35572782	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	88722	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99081	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/20/05	12/22/05	19406510	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99990	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/20/05	12/22/05	2691410	
05-5123-1	WAB15	ORIG	DZB10144MW2-121505-W	WATER	12/15/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	98953	
05-5123-1																	

RAW ANALYTICAL DATA  
ANNUAL 2005 GROUNDWATER MONITORING  
HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	99876
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/20/05	12/20/05	71432
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108861
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74975
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75274
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/20/05	12/20/05	75252
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74839
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	56235
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	108907
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75003
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/20/05	12/20/05	67663
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74873
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156592
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061015
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	124481
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/20/05	12/20/05	96128
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74953
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75718
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75092
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	100414
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/20/05	12/20/05	87683
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	108383
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	103651
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/20/05	12/20/05	91203
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/20/05	12/20/05	95476
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	135988
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/20/05	12/20/05	100425
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98066
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/20/05	12/20/05	127184
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/20/05	12/20/05	108883
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156605
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061026
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/20/05	12/20/05	79016
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75694
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	75014
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	630206
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	71556
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	79345
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	79005
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75343
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	75354
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	563586
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	87616
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	96184
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	120821
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95636
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/21/05	12/21/05	106934
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95501
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	107062
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	78875
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108678
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	541731
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	142289
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	106467
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	594207
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	95498
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	106434
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	99876
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/21/05	12/21/05	71432
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108861
05-5133-10	WAB16	ORIG	TB121505	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74975
05-5133-10	WAB16	ORIG	TB121505													



RAW ANALYTICAL DATA  
ANNUAL 2005 GROUNDWATER MONITORING  
HAWTHORNE ARMY DEPOT HAWTHORNE, NEVADA

05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75343	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75354	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	563586	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	87616	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	96184	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	120821	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95636	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/21/05	12/21/05	106934	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	95501	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	107062	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	78875	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108678	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	541731	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	142289	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	106467	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/21/05	12/21/05	594207	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	95498	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	106434	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/21/05	12/21/05	99876	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/21/05	12/21/05	71432	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108861	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74975	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75274	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/21/05	12/21/05	75252	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74839	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	56235	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/21/05	12/21/05	108907	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/21/05	12/21/05	75003	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/21/05	12/21/05	67663	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74873	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156592	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061015	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	124481	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/21/05	12/21/05	96128	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/21/05	12/21/05	74953	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75718	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75092	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	100414	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/21/05	12/21/05	87683	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98828	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/21/05	12/21/05	108383	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/21/05	12/21/05	1634044	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	104518	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-PROPYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	103651	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	NAPHTHALENE	2	2	U	UG/L	12/21/05	12/21/05	91203	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/21/05	12/21/05	95476	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	135988	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/21/05	12/21/05	100425	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98066	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/21/05	12/21/05	127184	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/21/05	12/21/05	108883	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156605	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061026	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/21/05	12/21/05	79016	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75694	
05-5133-7	WAB16	ORIG	IRPMW50B-121505-WER	WATER	12/15/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	75014	
05-5133-1	WAB16	ORIG	DZB10113MW4-121605-W	WATER	12/16/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/22/05	12/22/05	88891	
05-5133-1	WAB16	ORIG	DZB10113MW4-121605-W	WATER	12/16/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.64	U	MG/L	12/22/05	12/22/05	7664417	b
05-5133-1	WAB16	ORIG	DZB10113MW4-121605-W	WATER	12/16/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.1	0.073	U	MG/L	12/17/05	12/17/05	14797558	b
05-5133-1	WAB16	ORIG	DZB10113MW4-121605-W	WATER	12/16/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.13	0.13	U	MG/L	12/17/05	12/17/05	7727379	
05-5133-1	WAB16	ORIG	DZB10113MW4-121605-W	WATER	12/16												

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05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	118967	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	121142	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	606202	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/20/05	12/22/05	35572782	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	88722	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99081	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/20/05	12/22/05	19406510	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99990	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	HMX	1	1	U	UG/L	12/20/05	12/22/05	2691410	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	NITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	98953	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	RDX	0.25	0.25	U	UG/L	12/20/05	12/22/05	121824	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	TETRYL	1	1	U	UG/L	12/20/05	12/22/05	479458	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	TKN	SM 4500-NORGB/4500-N3HC SMEWW (1992	APCL	TOTAL KJELDAHL NITROGEN	0.2	0.14	U	MG/L	12/22/05	12/22/05	7727379	b
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	630206	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,1-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	71556	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2,2-TETRACHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79345	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1,2-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	79005	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75343	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,1-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	75354	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	563586	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,3-TRICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	87616	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	96184	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2,4-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	120821	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DIBROMOETHANE (EDB)	2	2	U	UG/L	12/20/05	12/20/05	106934	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	95501	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	107062	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,2-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	78875	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3,5-TRIMETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108678	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	541731	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,3-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	142289	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	1,4-DICHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	106467	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2,2-DICHLOROPROPANE	2	2	U	UG/L	12/20/05	12/20/05	594207	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	2-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	95498	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-CHLOROTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	106434	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	4-ISOPROPYLTOLUENE	2	2	U	UG/L	12/20/05	12/20/05	99876	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BENZENE	1	1	U	UG/L	12/20/05	12/20/05	71432	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108861	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74975	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMODICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75274	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOFORM	2	2	U	UG/L	12/20/05	12/20/05	75252	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	BROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74839	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CARBON TETRACHLORIDE	2	2	U	UG/L	12/20/05	12/20/05	56235	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROBENZENE	2	2	U	UG/L	12/20/05	12/20/05	108907	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROETHANE	2	2	U	UG/L	12/20/05	12/20/05	75003	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROFORM	2	2	U	UG/L	12/20/05	12/20/05	67663	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74873	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/20/05	12/20/05	156592	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	CIS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/20/05	12/20/05	10061015	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	124481	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOCHLOROPROPANE (DBCP)	2	2	U	UG/L	12/20/05	12/20/05	96128	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DIBROMOMETHANE	2	2	U	UG/L	12/20/05	12/20/05	74953	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLORODIFLUOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75718	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	DICHLOROMETHANE	2	2	U	UG/L	12/20/05	12/20/05	75092	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ETHYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	100414	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	HEXACHLOROBUTADIENE	2	2	U	UG/L	12/20/05	12/20/05	87683	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	ISOPROPYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	98828	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	M&P-XYLENES	2	2	U	UG/L	12/20/05	12/20/05	108383	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	METHYL TERTIARY BUTYL ETHER	2	2	U	UG/L	12/20/05	12/20/05	1634044	
05-5133-2	WAB16	ORIG	DZB10113MW5-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	N-BUTYLBENZENE	2	2	U	UG/L	12/20/05	12/20/05	104518	
05-5133-2	WAB16	ORIG															

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05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	O-XYLENE	2	2	U	UG/L	12/21/05	12/21/05	95476
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	SEC-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	135988
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	STYRENE	2	2	U	UG/L	12/21/05	12/21/05	100425
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TERT-BUTYLBENZENE	2	2	U	UG/L	12/21/05	12/21/05	98066
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TETRACHLOROETHENE (PCE)	2	2	U	UG/L	12/21/05	12/21/05	127184
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TOLUENE	2	2	U	UG/L	12/21/05	12/21/05	108883
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,2-DICHLOROETHENE	2	2	U	UG/L	12/21/05	12/21/05	156605
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRANS-1,3-DICHLOROPROPENE	2	2	U	UG/L	12/21/05	12/21/05	10061026
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROETHENE (TCE)	2	2	U	UG/L	12/21/05	12/21/05	79016
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	TRICHLOROFLUOROMETHANE	2	2	U	UG/L	12/21/05	12/21/05	75694
05-5133-8	WAB16	ORIG	IRPMW52-121605-W	WATER	12/16/05	VOA8260	EPA OTHER ORGANIC ANALYSIS	APCL	VINYL CHLORIDE	2	2	U	UG/L	12/21/05	12/21/05	75014
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	ACID	EPA OTHER ORGANIC ANALYSIS	APCL	PICRIC ACID	0.9	0.9	U	UG/L	12/22/05	12/22/05	88891
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	AMMON	EPA 350.3, MCAWW (1983)	APCL	AMMONIUM AS N	0.3	0.17	J	MG/L	12/22/05	12/22/05	7664417
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	ANION	EPA 300.0 (1984)	APCL	NITRATE AS N	0.04	0.028	J	MG/L	12/17/05	12/17/05	14797558
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	ANION	EPA 300.0 (1984)	APCL	NITRITE AS N	0.05	0.05	U	MG/L	12/17/05	12/17/05	7727379
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3,5-TRINITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	99354
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	1,3-DINITROBENZENE	1	1	U	UG/L	12/20/05	12/22/05	99650
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4,6-TRINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	118967
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,4-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	121142
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2,6-DINITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	606202
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-AMINO-4,6-DINITROTOLUENE	0.18	0.18	U	UG/L	12/20/05	12/22/05	35572782
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	2-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	88722
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	3-NITROTOLUENE	1	1	U	UG/L	12/20/05	12/22/05	99081
05-5133-9	WAB16	ORIG	IRPMW52-121605-WER	WATER	12/16/05	EXP	EPA 8330, SW-846 (1994A)	APCL	4-AMINO-2,6-DINITROTOLUENE	0.06	0.06	U	UG/L	12/20/05	12/22/05	19406510
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**ATTACHMENT 2**  
**ELECTRONIC DATA DELIVERABLES ANNUAL 2005**  
**(PROVIDED ON CD)**

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT  
SPECIAL INSTRUCTION SHEET

1. QA: NA  
Page 1 of 1

This is a placeholder page for records that cannot be scanned.

2. Record Date  
2/12/07

3. Accession Number  
A++ MOL. 20070919. 0232

4. Author Name(s)  
NA

5. Authorization Organization  
Tetra Tech EM Inc.

6. Title/Description  
Final Annual 2005 Groundwater Monitoring Report, Hawthorne Army Depot, Hawthorne, Nevada

7. Document Number(s)  
DOE/EIS-0369D

8. Version Designator  
D

9. Document Type  
Data

10. Medium  
CD

11. Access Control Code

PVB

12. Traceability Designator

Rail-AR REF 75770

13. Comments

Attached File List  
Software: ARC GIS

*2 p 2 9/18/07*

THIS IS AN ELECTRONIC  
ATTACHMENT

14. RPC Electronic Media Verification

MOL.20070918.0409

XREF

SEP 19 2007 *T Church / BSC-BS*

MD5 Validation

directoryprint

volume in drive D is 070213\_1547  
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		1 File(s)	2,235,392 bytes

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